THE INDEPENDENT JOURNAL OF THE LARGE FORMAT MOTION PICTURE INDUSTRY

LF examiner®

September 2016
Vol. 19, No. 6

GSCA 2016 Preview

The Giant Screen Cinema Association will hold its annual international conference and trade show in Toronto, ON, Canada, Oct. 4–7. About 400 people are expected to attend the meeting, which will feature film screenings, presentations on films in production and development, discussion panels, a technical session, a trade show, and an awards ceremony. The 66 film presentations represent a record unmatched since the 1999 meeting of the Giant Screen Theater Association in New York City.

Screenings will be held at the 400-seat **Scotiabank IMAX Theatre**, now equipped with an IMAX laser projection system projecting on its 60x78-foot (18x24-meter) screen, and the **Shoppers Drug Mart OMNIMAX** at the **Ontario Science Centre**, with 320 seats and a 79-foot (24-meter) dome. Conference sessions will be held at the Royal York Hotel.

Highlights of the meeting include a half-day demonstration of **Evans & Sutherland**'s True8K Digistar 5 digital fulldome

*(see **SATURN** on page 2)*

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The Future of Film

Two years ago, in the September 2014 issue of *LF Examiner*, we published a special report featuring the views of two dozen experts from the giant-screen world on "The Future of Film."

The report briefly recounted the long history of motion pictures, as captured and projected on physical film, and the many predictions of film's demise over the past four or five decades. We now can see that that demise truly began in 2005, with the publishing of the **Digital Cinema Initiatives** specification for digital cinema projection. By the fall of 2014, roughly 85% of the world's 140,000 multiplex cinemas had converted from 35mm film projection to DCI-compliant systems that started rolling out in 2006.

Today, that conversion is essentially complete. Although a few powerful auteurs like **Christopher Nolan**, **Quentin Tarantino**, and **Martin Scorsese** continue to champion shooting and exhibiting movies on film, virtually all commercial "films" today are projected digitally, everywhere in the world. The majority of releases are now shot with digital cameras.

The giant-screen world has not moved as quickly to convert as its Hollywood and multiplex counterparts. The main reason is that the image quality of the original 2K DCI spec was patently inadequate to replace GS film. It was only after 4K projection became available in late 2010 that the GS industry had a format that it considered acceptable.

Another reason, of course, is that most GS theaters are not commercial operations, and therefore don't have the financial incentives, or resources, to make the significant investments needed to go digital. And for GS dome theaters (roughly

*(see **FILM** on page 6)*

The Case for HFR in Giant Screen Theaters

by Gord Harris

In my previous article (*see LF Examiner, Summer 2016*) I presented evidence for increasing the digital film rate for giant-screen documentaries from 24 frames per second. In our high-frame-rate (HFR) demo at the **Giant Screen Cinema Association**'s Film Expo Los Angeles in March, **Pierre Routhier** and I showed the quality of 4K capture and display at 60 and 120 fps versus the more common 24 fps playback. The results of the survey I published in the Summer issue demonstrated that people can see benefits of HFR in giant-screen documentaries that strive for realism, although the same may not be true for fantasy or fiction films. Let's consider the history of HFR and the mixed opinions it has generated.

I believe the significance of dynamic resolution — the perception of increasing image sharpness as the frame rate increases — has been shortchanged, and its importance for giant screens, particularly domes, has been underestimated. Higher framer rates could be one way to separate the giant-screen world from commercial cinemas. In a world where cost cutting and lowering of image quality is rampant, perhaps it is time to go against the flow.

*(see **HFR** on page 10)*

Premiering This Month

Sully
The Magnificent Seven
Deepwater Horizon
Earthflight
Hurricane
The Search for Life in Space

See page 16.

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LF examiner
THE INDEPENDENT JOURNAL OF THE LARGE FORMAT MOTION PICTURE INDUSTRY

Founded 1997 as MaxImage!

September 2016
Vol. 19, No. 6

Editor/Publisher
James Hyder

Associate Editor
William Hyder

Circulation Manager
Thomas Jacobs

Published 9 times a year by Cinergetics, LLC, and distributed by first class mail.
Printed in the USA.

ISSN 1532-5504

Subscriptions: US$447
Outside North America: US$487
All payments must be made in US funds.
Substantial discounts are available for multiple subscriptions to the same address.

Editorial Offices
8713 Castle Hill Ave.
Las Vegas, NV, 89129 USA
Tel: 702-331-1843
editor@LFexaminer.com

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GSCA 2016 Conference Preview

*(from **HFR SURVEY** on page 1)*
system (including a split-screen comparison with 15/70 film), a technical session on immersive audio, and panel discussions on the impact on giant screens of virtual reality and alternative content.

Film presentations

Of the 16 new films to be presented in Toronto, 11 are being shown in their entirety for the first time, although four of these are not complete and are being presented in fine- or rough-cut versions. They, and their production companies, are:

Aircraft Carrier: Guardian of the Seas	K2 Communications
Amazing Mighty Micro Monsters 3D	Colossus Productions
Asteroid: Mission Extreme	National Geographic Studios
A Beautiful Planet	Imax Corporation
Conquest of the Skies (fine cut)	Colossus Productions
Dream Big (rough cut)	MacGillivray Freeman Films, Inc.
Earthflight	BBC Earth
Extreme Weather	National Geographic Studios
The Final Passage	Rup'art Productions
Global Soundscapes (fine cut)	Foxfire Interactive Corporation
Hurricane (rough cut)	Ouragan Films
Incredible Predators	BBC Earth
Mysteries of China	Giant Screen Films
National Parks Adventure	MacGillivray Freeman Films, Inc.
The Search for Life In Space 3D	December Media
Voyage of Time	Sophisticated Films Gmbh

In addition, 29 films in production are being presented, all but seven of which are being seen here for the first time. Finally, of the 21 films in development, ten have not been presented at previous conferences.

The highlight of the new films is **Terence Malick**'s long awaited ***Voyage of Time***, a project the reclusive director has reportedly been working on for three decades, and which includes a great deal of footage captured on 15/70 film. (Unfortunately, it will not be presented on film at the conference.) The official synopsis describes it as "a one-of-a-kind celebration of life and the grand history of the cosmos, transporting audiences into a vast yet up-close-and personal journey that spans the eons from the Big Bang to the dinosaur age to our present human world...and beyond."

8K fulldome demo

Evans & Sutherland has temporarily equipped the science center's dome with the world's first True8K system in a giant dome. The Digistar 5 fulldome system uses ten Christie 4K projectors to project a minimum of 8,000 pixels across every meridian of the dome. (The only other such installation is in the Burke Baker Planetarium's 50-foot (15.2-meter) dome at the **Houston Museum of Natural Science** in Texas.)

The demonstration will include "some of the very best film capture transferred to digital; high-resolution live content captured digitally; high-resolution digital time-lapse; and high-frame-rate presentations," according to the GSCA. The release continues, "**FotoKem** is supervising the production of pristine 8K digital assets, brand new prints from 15/70 negatives, and 8K source material shot with state-of-the-art digital cameras. We will present 15/70 film and 8K digital in a split screen, so the audience can carefully compare the quality of both media side by side."

Professional development

There will be four professional development sessions, two of which are perennial favorites: the Giant Screen 101 panel, which acquaints newcomers to the GS world with the basics on how theaters operate and films get made; and the marketing session, which looks at how theaters developed and implemented marketing campaigns for their films.

The other two deal with new technologies and their impact on GS theaters. "Alternative Content: What Does It Mean for Me?" will look at the new programming options that digital projection systems give theaters. "Virtual Reality: A Good Thing for Giant Screen, or Should We Be Worried?" will feature presentations by several experts in this new tech that seems to be "poised for lift-off" and could provide competition for giant screens or become a useful new complement to GS in museums and institutions.

For more information about the conference, and to register, visit giantscreencinema.com.

The Cineplex Scotiabank Theatre in Toronto.

GSCA 2016 Conference Schedule

Monday, October 3: Pre-Conference Day

8:00 am - 8:00 pm	Registration and Information	Hotel: Salon B
8:00 am - 8:00 pm	Film Rehearsals	IMAX Theatre, Omnimax
8:30 am - 11:00 am	Board Meeting	Hotel: Manitoba
11:00 am - 12:45 pm	Committee Meetings:	
	Event Planning	Hotel: Manitoba
	Member Services	Hotel: Alberta
1:00 pm - 2:45 pm	Committee Meetings:	
	Technical	Hotel: Alberta
	Industry Development	Hotel: Manitoba
3:00 pm - 5:00 pm	3D Film Interest Group* (invitation only)	Hotel: Alberta
3:00 pm - 6:00 pm	Giant Screen Industry 101	Hotel: Concert Hall
5:00 pm - 6:00 pm	Distributors Interest Group* (invitation only)	Hotel: Manitoba
6:00 pm - 7:00 pm	New Members and First-Timers Reception (invitation only)	Hotel: Upper Canada Room, 18th Floor
7:00 pm - 8:00 pm	Welcome Reception	Hotel: Upper Canada Room, 18th Floor

Tuesday, October 4: Conference Day 1

	Breakfast on your own	
7:15 am - 8:00 am	Walk to Scotia Bank IMAX Theatre	
8:00 am - 11:45 am	Registration and Information	IMAX Theatre
8:00 am - 8:45 am	**New Film 1: *Global Soundscapes***(fine cut)	IMAX Theatre
8:45 am - 9:30 am	**New Film 2: *Incredible Predators***	IMAX Theatre
9:30 am - 10:15 am	**New Film 3: *Earthflight***	IMAX Theatre
10:15 am - 10:30 am	Break	
10:30 am - 11:00 am	**New Film 4: *Aircraft Carrier***	IMAX Theatre
11:00 am - 11:45 am	**New Film 5: *Voyage of Time***	IMAX Theatre
11:45 am - 1:15 pm	Lunch on your own	
11:45 am - 1:15 pm	Euromax Meeting (by invitation only)	tba
11:30 am - 1:15 pm	Alternative Content SIG Meeting (by invitation only)	tba
12:00 pm - 1:30 pm	Awards Rehearsal	Hotel: Concert Hall
1:15 pm - 5:30 pm	Registration and Information	IMAX Theatre
1:15 pm - 4:30 pm	Films in Production	IMAX Theatre
4:30 pm - 4:45 pm	Break	IMAX Theatre
4:45 pm - 5:30 pm	Projects in Development	IMAX Theatre
5:30 pm - 6:15 pm	**New Film 6: *Dream Big*** (rough cut)	IMAX Theatre
6:15 pm	Walk to hotel	
7:00 pm - 9:30 pm	GSCA Achievement Awards	Hotel: Concert Hall

Wednesday, October 5: Conference Day 2

	Breakfast on your own	
8:00 am - 1:00 pm	Registration and Information	Hotel: Salon B
7:30 am - 8:45 am	The Road to Success: Marketing Workshop	Hotel Concert Hall
8:45 am - 8:55 am	Break	Hotel Concert Hall Foyer
8:55 am - 10:10 am	Alternative Content	Hotel Concert Hall
10:10 am - 10:20 am	Break	Hotel Concert Hall Foyer
10:20 am - 11:35 am	Virtual Reality: A Good Thing for Giant Screen, or Should We Be Worried?	Hotel Concert Hall
11:35 am - 11:45 am	Break	Hotel Concert Hall Foyer
11:45 am - 1:00 pm	Members Meeting and Lunch	Hotel Concert Hall
1:00 pm	Walk to Scotia Bank IMAX Theatre	
1:30 pm - 5:30 pm	Registration and Information	IMAX Theatre
1:30 pm - 3:10 pm	Technical Session	IMAX Theatre
3:10 pm - 3:15 pm	Break	IMAX Theatre
3:15 pm - 4:00 pm	**New Film 7: *Mysteries of China***	IMAX Theatre
4:00 pm - 4:30 pm	**New Film 8: *Conquest of the Skies*** (fine cut)	IMAX Theatre
4:30 pm - 5:15 pm	**New Film 9: *Extreme Weather***	IMAX Theatre
5:30 pm - 6:30 pm	Reception	The Ballroom, 145 John St.
6:30 pm	Evening on your own	

Thursday, October 6: Conference Day 3

Flat-screen presentations will be held at the Scotiabank IMAX Theatre, and dome screen presentations will be at the Ontario Science Centre throughout the day. The schedule below is separated by screen type.

ALL DELEGATES

	Breakfast on your own	
8:00 am - 4:00 pm	Trade Show Set Up (Exhibitors only)	Hotel: Concert Hall

FLAT SCREEN PRESENTATIONS

8:15 am	Walk to Scotia Bank IMAX Theatre for films on the flat screen	
8:30 am - 3:00 pm	Registration and Information	IMAX Theatre
8:45 am - 9:30 am	**Film 10: *Hurricane*** (rough cut)	IMAX Theatre
9:30 am - 10:00 am	**New Film 11: *Asteroid: Mission Extreme***	IMAX Theatre
10:00 am - 10:45 am	**New Film 12: *National Parks Adventure***	IMAX Theatre
10:45 am - 11:00 am	Break	
11:00 am - 11:45 am	**New Film 13: *A Beautiful Planet***	IMAX Theatre
11:45 am - 12:30 pm	**New Film 14: *The Search for Life in Space***	IMAX Theatre
12:30 pm - 2:15 pm	Lunch on your own	

DOME SCREEN PRESENTATIONS

6:30 am	Shuttles between hotel and OSC for dome film screenings	Hotel: Front St. entrance
7:00 am - 3:00 pm	Registration and Information	OSC
7:00 am - 8:00 am	**Dome film 1: *Mysteries of China***	Omnimax
8:00 am - 9:00 am	**Dome film 2: *A Beautiful Planet***	Omnimax
9:00 am - 10:00 am	**Dome film 3: *The Search for Life in Space***	Omnimax
10:00 am - 11:00 am	**Dome film 4: *Extreme Weather***	Omnimax
11:00 am - 11:15 am	Films in Production	Omnimax
11:15 am - 12:30 pm	Lunch	OSC: Telus Room
12:30 pm - 1:15 pm	**Dome film 5: *National Parks Adventure***	Omnimax
1:30 pm	Final buses leave OSC for IMAX Theatre and hotel	

ALL DELEGATES

2:15 pm - 2:45 pm	**New Film 15: *The Final Passage***	IMAX Theatre
2:45 pm - 3:30 pm	**New Film 16: *Amazing Might Micro Monsters***	IMAX Theatre
3:30 pm	Walk to hotel	
4:00 pm - 8:00 pm	Registration and information	Hotel: Salon B
4:00 pm - 8:00 pm	Trade show with cocktails and hors d'oeuvres	Hotel: Concert Hall
8:00 pm - 12:00 am	Trade show break down (exhibitors only)	Hotel: Concert Hall
8:00 pm - 9:30 pm	GSCA Board Meeting (working dinner)	Hotel: Manitoba
8:00 pm	Dinner on your own	
9:00 pm - 1:00 am	GSCA Party	Lee's Palace at 529 Bloor Street West

Friday, October 7: Digital Dome Demo

8:30 am	Buses depart the hotel for OSC.	Hotel: Front St. entrance
9:00 am	True8K Digital Dome Demonstration	Omnimax
12:00 pm	Buses depart OSC to return to the hotel	

*These special interest groups are privately held meetings and are by invitation only. Special interest groups are run and managed by GSCA members, but are not official GSCA groups.

The Ontario Science Centre's OMNIMAX theater.

D3D announces first laser dome

D3D Cinema has announced that the **Great Lakes Science Center** in Cleveland, OH, will receive the world's first laser-illuminated giant dome projection system in October. The three-projector system was developed in partnership with **Christie Digital Systems** and will feature 6K resolution and the ability to project at up to 120 fps. According to a press release the projectors are able to deliver up to 150,000 lumens, but no other technical details about the system were disclosed, including its configuration, whether it will be capable of showing DCI-compliant material, or whether it will require specially-prepared content.

The 79-foot (24-meter) dome theater closed on Sept. 5 and will reopen in mid-October with new seats and new carpeting. It originally opened in June 1996 as an IMAX Dome theater with 15/70 film projection.

To date, relatively few film-based giant dome theaters have been converted to digital projection, and all but two of those have switched to fulldome systems, which are generally not DCI-compliant. The giant-screen industry has long been awaiting a digital system capable of filling dome screens 60 feet (18 meters) or wider with bright, sharp images as good as, or better than, those provided by 15/70 film.

When **Imax Corporation** rolled out its laser-powered 4K system for flat-screens in late 2014, it said that it would launch a dome system a year later, but missed that date. At a May 2016 meeting with dome operators, it demonstrated a preliminary system but declined to say when the finished system would be available. (*See LF Examiner, May-June 2016.*)

Similarly, D3D originally announced that its laser dome system would be available by the end of 2015.

Voyage's unusual distribution deal

Terence Malick's *Voyage of Time* is unusual in many respects, and also has an unusual distribution deal. The film is being released in two versions: the 40-minute giant-screen version, narrated by **Brad Pitt**, will open in IMAX theaters in the U.S. on Oct. 7. The 90-minute feature version, narrated by **Cate Blanchett**, will open in multiplexes in Australia and France in December, Japan in January, and other international territories over the following six months. Then, according to producer **Sophokles Tasioulis** of **Sophisticated Films**, in "a year or so, the distribution routes will flip, with the IMAX version rolling out over international and the feature in the U.S."

IMAX Theatre Sydney

The feature version premieres at Italy's **Venice Film Festival** in early September. Both versions are being screened at the **Toronto International Film Festival** this month.

Sydney IMAX to be torn down

Australia's **IMAX Theatre Sydney**, which has boasted the largest cinema screen in the world for 20 years, is being torn down this fall to make way for a new 25-story building, known as the Ribbon for its unusual fluid shape. The new building will include a hotel, retail, and entertainment, including a new IMAX theater.

The existing theater will close on Sept. 25, 2016, twenty years to the day after it opened in 1996, and the new theater will open in 2019 with the new building. The theater's CEO, **Mark Bretherton**, tells *LF Examiner* that "there was some discussion about a temporary theater site, but cost and suitable location worked against this."

Bretherton told Sydney's *Daily Telegraph* that the new theater will have the IMAX laser projection system and wider seats, because, he explained, "when we first opened we were designed for shorter documentaries, and now we do the longer, feature films." The new theater's screen will be "marginally" smaller than the existing one (which is 96.5x 117.2 feet, or 29.4x 35.7 meters) "for engineering reasons," but will still be the largest in the world.

The only other IMAX theater in Sydney is the **Hoyts Entertainment Quarter IMAX**, a multiplex theater with a screen less than one-sixth the area of the Darling Harbour theater's.

During the interim, the distinction of largest screen in the world will fall to the **T IMAX, AFI Palace Cotroceni** in Bucharest, Romania. Its screen has always been wider than Sydney's at 121.4 feet (37.0 meters), but is almost ten feet (three meters) shorter, giving it a total area of "only" 10,355 square feet (962 square meters), compared to 11,310 square feet (1,050 square meters) for Sydney. The next two closest contenders are **IMAX, Melbourne Museum** in Australia, and **AMC Loews Lincoln Square** in New York City, both of which have areas about 2,600 square feet (240 square meters) smaller.

Bretherton tells *LFX* that "as a consequence of timing, I won't be attending the GSCA conference in October (the first time in more years than I care to remember)."

IMAX Theatre Sydney

TX and FL theaters go IMAX laser

IMAX theaters in Austin, TX, and Fort Lauderdale, FL, are currently in the process of switching to IMAX laser projection.

In Austin, the **Bullock Texas State History Museum** is replacing the first-gen IMAX digital projectors it installed in February 2015 with the new laser-powered units. The theater closed in early August and will reopen in October with the new projection and 12-channel sound system, as well as new carpeting and luxury seats, and an expanded concession stand. The new, wider seats will cut the seat count by 60 to 329. The theater will reopen with **Terence Malick**'s ***Voyage of Time***.

In Fort Lauderdale, the **Museum of Discovery and Science** is closed for the month of September to convert to IMAX laser. The theater was built in 1992, and since that time has switched from 2D IMAX 15/70 projection to 2D 15/70 (1996), first-gen IMAX digital (2014), and now IMAX laser.

Bridge plan may affect CT IMAX

The IMAX theater at the **Maritime Aquarium** in Norwalk, CT, might be taken to provide a construction staging area when a nearby railroad bridge is rebuilt over the next few years, according to an unnamed source cited by a local news site. The theater is not listed among sites officially being considered by the state department of transportation for "temporary easements or permanent takings to facilitate the bridge replacement," according to TheHour.com.

The DOT project manager said he "highly doubt[ed]" the theater would be taken for the project but added, "the property is being evaluated just like all the other properties...around the project."

Museum spokesman **David Sigworth** said he wouldn't speculate on the rumor, but that "we know the area around the aquarium is going to be affected, and so we are making a selection of responses to what the final project plan will be."

The 120-year-old Walk Bridge is a swing bridge over the Norwalk River with four railroad tracks that carry 200 trains and 125,000 passengers every day. The tracks bisect the museum: the main building and exhibit halls are on the north side, and the 365-seat IMAX theater is on the south side, about 25 feet (7.6 meters) from the bridge. A hallway beneath the bridge connects them.

According to the official factsheet on the project, recent failures of the bridge have caused "safety concerns and travel delays."

nWave acquires *Hurricane*

nWave Pictures has acquire the worldwide distribution rights to **Ouragan Films**' ***Hurricane***, a 40-minute film about the world's most powerful storms that will be shown at the **Giant Screen Cinema Association**'s conference in Toronto next month. The 3D production was filmed over five years at locations around the globe, and was directed by **Cyril Barbançon**, **Andy Byatt**, and **Jacqueline Farmer**.

Miami planetarium to go Sky-Skan

The **Frost Museum of Science** in Miami has selected **Sky-Skan** to install a Definiti 8K 3D fulldome system in the new **Frost Planetarium** that will be housed in the museum's new location when it opens next year. The new planetarium will seat 250 in a tilted dome, and feature a 17-channel sound system.

The new planetarium, made possible by a $10 million gift from **Patricia** and **Phillip Frost**, replaces the Miami Space Transit Planetarium, in the former museum of science, which closed last year.

In Memoriam: Jim Patterson

Jim Patterson, director of business development for Thailand's **Major Cineplex** theater chain, died on Aug. 13 after a yearlong battle with cancer. Born in Canada, Patterson had lived in Thailand for the past 25 years, and worked at Major for nearly 20 years. He became part of the GS community when Major installed its first IMAX theater in Bangkok in 1998. He helped open and market the three additional IMAX screens the chain opened between 2010 and 2015.

Jim Patterson

Patterson also consulted on marketing to other GS theater operators, helping to launch the **Digicel IMAX Theatre** in Port of Spain, Trinidad, for which the theater won the **Giant Screen Cinema Association**'s Best Theater Marketing Campaign in 2012.

Patterson was a former board member of the Thai-Canadian Chamber of Commerce, which said after his death, "Jim touched everyone he met, and his sense of humour and showmanship shone through even at the end of his life, as he made sure popcorn was served at his funeral."

David Willrich is TEA president

The **Themed Entertainment Association** has announced that **David Willrich** has been unanimously chosen by its board to be the group's next president. He officially takes office in November, succeeding **Steve Birket**, of **Birket Engineering**, who is completing his second one-year term.

David Willrich

Willrich is managing director of **DJ Willrich Ltd.**, a U.K.-based audio, visual, and multimedia firm. He has been in leadership at the TEA for eight years, including as president of the Europe and Middle Eastern Division (TEA EME).

TEA has more than 1,200 member companies in divisions covering North America, Europe and Middle East, and Asia Pacific.

The Future of Film

*(from **FILM** on page 1)*

half of all GS screens), the digital options to date have been limited, to say the least, although this is changing.

As of this writing, there are about 235 non-multiplex GS theaters worldwide. Roughly 45% have discarded 70mm film for digital, another 45% continue to show only film, and the remaining 10% have both film and digital projectors.

So how much longer will film last in the giant-screen business, both as a capture medium and as an exhibition format? It took about a decade, starting in 2006, for the world's 140,000 multiplex cinemas to make the switch to digital. How long can the 200+ GS theaters be expected to continue running those expensive, bulky, and fragile prints through their projectors? And how long will directors and DPs be carrying those cumbersome, noisy 15/70 cameras and expensive rolls of film out to the most remote corners of the earth to capture their enchanting imagery? Will the GS world be all-digital within ten years of the start of its digital conversion in 2011?

Our survey

We sent e-mails to nearly 100 members of the GS business, including theater mangers, museum directors, film producers, directors, cinematographers, distributors, and others. We asked the same set of questions we had asked in 2014. (*See box below.*) We received replies from 33, of whom 14 were theater reps, 13 were filmmakers in various roles, four were distributors, and two were production service providers. We offered respondents the option of speaking confidentially, but everyone agreed to be on the record.

(*Please note that this was not a scientific survey. The initial list of contacts was not a randomly selected cross-section of the industry, and those who replied were self-selected. This is a compilation of opinions from generally knowledgeable people in our business, not a representative sample.*)

Perhaps the most significant replies we received were from the three companies that have the greatest influence over the use of film in GS theaters: Imax Corporation; **FotoKem** in Los Angeles, the only remaining processing lab; and **Eastman Kodak**, the sole remaining manufacturer of motion picture film.

We reprint Imax's official response in full in the box on page 7.

FotoKem's **Andrew Oran** restated the reply he had given us two years ago:

"FotoKem remains committed to supporting giant-screen and immersive media filmmakers to plan, process and finish their films, no matter how they're shot or projected. We continue to process and print 65mm negative and 70mm print on a daily basis, and hope to do so for many years to come. The unique attributes of 65mm film capture and 70mm film exhibition defy a 'better/worse' analysis relative to digital capture and exhibition: the two mediums are simply different. We are happy to support filmmakers, new to the field or life-long veterans, who chose film to tell their stories."

The Questions We Asked

1. The conventional cinema industry has virtually completed its conversion to digital projection, and there seems to be little future for film projection in multiplexes. Do you feel the same is true of the giant-screen industry? How much longer do you think 70mm film projectors will be viable in giant-screen theaters?
2. Do you think an effort should be made to preserve giant-screen film projection? Do you think digital projection is as good as giant-screen film now? If not, when do you think it will be?
3. What effect do you think laser-illuminated digital projectors are having on the giant-screen industry?
4. On the production side, do you think that shooting on 70mm film is important for films that are made for giant-screen theaters? How much longer do you think film will be viable for capturing images for giant-screen films?
5. Do you think an effort should be made to preserve giant-screen film capture? Do you think digital cameras are as good as giant-screen film now? If not, when do you think they will be?
6. What other thoughts do you have about the legacy and future of film in the giant-screen world?

Kodak's position

Steve Bellamy, Kodak's president of motion picture and entertainment, Consumer and Film Division, was extremely optimistic about the future of film in a conversation with *LF Examiner*. "Kodak is very bullish on all film. Clearly the gold standard of projection is 70mm print film. It is our hope and our belief that that will be a growing business going forward."

Asked if the GS world needs to be concerned about the 70mm manufacturing lines being shut down, he said, "I hate to use the word 'zero,' but it's as close to a zero-percent chance as I would be comfortable talking about. We had a banner year in film [in 2015], we grew by a large margin. The overwhelming majority of the greatest motion picture artists in cinema are shooting film and are reenergized and reinvigorated for film."

Bellamy mentioned the growing sales of analog products like vinyl records, the resurgence of interest in 35mm still photography in high schools and colleges, and the large response to Kodak's announcement of a new consumer Super-8 film camera at the **Consumer Electronics Show** in January. He also pointed to new theaters, like the Metrograph in New York, that are installing 35mm film projectors.

"In general, the whole category of film is growing, and we think that every form of film will grow this year and next year and the year after," he said.

LFX asked whether there will be new developments in film emulsions for capture and projection. Bellamy was positive but vague. "In a month to four months there will be a 'break the Internet' announcement from Kodak. There will be *at least* one, and there could be more. There will be new film projection, there will be new technology, there will be new film

stocks. In the next five years there will be a lot of growth in film."

Film projection

As was the case two years ago, there is general agreement among our respondents that most giant-screen theaters will switch to digital projection in the next few years. The consensus in 2014 was that it would take about five years. Interestingly, this year the view of most people who stated an actual number is *still* five years. This perhaps reflects an optimism in the fall of 2014 about the new laser systems that had yet to be rolled out, and the expectation that a dome system would not be far behind.

A few of this year's respondents believe film has less than five years left as a projection format. **Janine Baker**, senior VP at **nWave Pictures Distribution**, says, "From discussions with sites and hardware installers, 2018 looks to be a good estimate of the last year for 70mm film in flat theaters." **Joe Deamicis**, VP of marketing at the **California Science Center**, agrees: "An increasing number of movies are only available digitally and I expect the trend to continue. I think the cut-off date for film projection will be sometime in 2018/2019."

Virtually everyone today is convinced that 4K laser projection on flat screens is as good as, or better than, 15/70 film. But they are also concerned about the delay in practical and affordable digital options for dome theaters.

Although Imax's laser system has been installed in more than 30 flat-screen theaters so far, and other companies have installed a handful as well, dome systems have proven tougher. Imax and **D3D Cinema** both announced they would roll out their dome systems sometime in 2015, but none has been delivered to date. D3D has just announced its first laser dome installation will be in October (*see item on page ???*), but there still is no official word on when Imax's system will be available.

Stephen Amezdroz of **December Media** says, "With IMAX's laser system and other laser systems that are available, we're matching film now, but domes are being left in the dark. Once [a digital dome system] arrives, we'll see institutions transition to them...in four years, max."

Veteran GS director **Greg MacGillivray** agrees on both counts. "I feel that IMAX laser projection is even slightly better, perhaps 5–10% better, than the best 15/70 film projection," but that "film projectors will be used, particularly in domes, for the next four years."

Dome operators concur. **Gary Monti** is director of museum operations at the **Cradle of Aviation Museum** in New York, where his 76-foot (24-meter) dome has both a de-branded IMAX film projector and a digital fulldome system. He thinks "15/70 still has some time left in the dome but Imax and D3D will soon figure out the geometry for laser projection. What may extend film's life in domes is the economy of scale." In other words, as

*(see **FILM** on page 8)*

Imax Corporation's response

1. Any new technology introduction or industry transition such as this takes time, both from a development and adoption perspective. This was certainly the case for conventional cinema.

Our development of IMAX with laser, the largest R&D investment in the Company's history, has provided our flat screen giant-screen customers with the most cutting-edge digital alternative to IMAX 70mm film. Several of our most iconic institutional sites have already transitioned to our laser system and the reception has been phenomenal – both in terms of delighting guests and driving increased attendance.

We are committed to supporting and maintaining our Dome film systems until we have a digital dome solution available. While it is difficult to put a time-table on such as transition, we fully expect IMAX 70mm film to be supported in these locations for at least the next three to five years.

2. We try to be format agnostic at IMAX and have been one of the biggest proponents to keeping film alive to support both our exhibitor and filmmaker partnerships that continue to use it. Our job is to deliver the best possible experience regardless of format.

We are incredibly proud of our technology team and the laser system they created. They took a radical approach to the design of the new system that required years of research and development, millions of dollars, and hundreds of scientist and engineers. The results have not only exceeded our internal expectations, but also the expectations of our partners and customers.

The new system excels beyond what film was ever capable of in areas such as 3D brightness, contrast and color and as with any new development it is only going to get more advanced over time as we look to continue to innovate.

3. Beyond the benefits to the quality of experience itself, I think laser is putting these theaters on the cutting-edge and opening the doors to more content that can be shown on-screen.

We've seen a revival in attendance from many of our theaters that have installed the new laser system and we are just beginning to scratch the surface.

4. IMAX film cameras continue to be the gold standard of capture and we continue to invest in producing more of them to meet the demand among filmmakers – both in the Hollywood and Documentary world. We expect these cameras to continue to be utilized by leading filmmakers for the foreseeable future.

5. As mentioned above, we are building more film cameras to support the increased demand we're seeing.

We are also making some great strides on the digital capture front. Following the launch of our 3D digital camera, we recently partnered with ARRI to develop a next-generation 2D digital camera that has been getting some incredibly positive reactions among the filmmaker community.

The camera technology used in production is very much a creative decision made by the filmmaker. While our film cameras continue to be the gold standard, particularly for breath-taking vista shots, digital has enabled filmmakers to do things creatively that were never possible for film. An example of this is the absolutely stunning night shots from space that Toni Myers was able to capture for the first time thanks to digital cameras for A Beautiful Planet.

Our mission at IMAX is to provide filmmakers with the best possible suite of camera technology – whether that is film, digital, 2D or 3D.

*(from **FILM** on page 7)*
long as a significant number of 15/70 theaters are still operating, it will remain financially viable for distributors to make prints.

But dome operators also know they can set their sights higher, and need to. Digital fulldome systems from suppliers like **Evans & Sutherland** and **Sky-Skan** offer 8K resolution and project at 60 fps. **Berend Reijnhoudt**, executive director at **Omniversum** in the Netherlands, says, "we need a digital system that will deliver a much better quality on the domes than 15/70 does right now. The majority of the films produced now look horrible on domes."

The loss of film

As in 2014, several people spoke of the coming demise of film projection with some regret. **Kim Cavendish** of Ft. Lauderdale, FL's **Museum of Discovery and Science** says, "Film is an historic medium, and if preserved, it can be saved and used. The scary thing to me about all digital is how fast the standards change. Things can go obsolete before you know it and be totally lost. An effort should be made to preserve giant screen *films* and to preserve the ability to show them as they were intended to be shown."

Sandy Henry, president of **Science Spectrum** in Lubbock, TX, concurs, as does **Gord Harris** of **Christie Digital**, who says, "An effort should be made to preserve LF film projection in a few venues at least, for archival purposes and special events. Film is still magic."

Richard Morrison, general manager of the **IMAX, Museum Victoria** in Melbourne, Australia, says that although most GS film projectors will soon be retired, "... it's clear that a niche exists for lovers of movies screened via film, as demonstrated by the performance of **[Quentin] Tarantino**'s ***The Hateful Eight*** on 70mm. I feel that once in a while there will be excitement around particular films, in part due to the push to experience them on film rather than digital."

Even those who have already switched to digital see the downside of losing film. The **Tennessee Aquarium** converted to IMAX laser earlier this year, but kept its 15/70 projector, just in case. CFO **Gordon Stalans** says the "opportunities to use the film projector [will be] very rare. I probably still have a VCR somewhere in my house, but do I use it? Of course not! [What] makes me sad is that we could lose the ability to show some of those great library films that have not been digitized. That's where the [industry's] effort should be focused."

However, most respondents are more practical about the financial viability of digital vs. film. Amezdroz says, "I'm as romantic as anyone else, I would dearly love to see someone preserve it, but I don't think that's the correct commercial path." Veteran director **Stephen Low** complains, "15/70 film prints have become too expensive for the producers and indeed the exhibitors, especially in 3D. Sadly it's not what we want, it's what we (and the audience) can afford."

Others were even more blunt: **Rodney Daniels**, of New Orleans' **Entergy Giant Screen Theatre**, says, "Unfortunately, I'm cynical, so I think money will dictate the change. Since [digital] production costs are lower compared to film, theaters will be forced to change their projection systems" if they want to get the newest films, which will increasingly be unavailable on film.

Giant Screen Films' Mark Katz says, "Unfortunately for the purists, film is going, going, and soon to be gone. Sure there will always be a few film projectors left, but new content [on film] will be scarce in the [multiplex] world and probably non-existent in the giant-screen world" in about three years.

At **National Geographic Cinema Ventures**, **Antonietta Monteleone** points out the many advantages of digital: "We believe digital projection is better than film, with rock-steady images, saturated colors, and no degradation over time. Also it is very hard to break a hard drive. From a distribution point of view, it is much easier to handle licenses and fulfillment, and shipping costs and turnaround times are lower."

Graphic Films' Ammiel Najar echoes those thoughts. "Distributors like the ideas of re-purposing data for a multitude of exhibition formats, of shipping hard drives versus 250-pound cases of film, and all that goes with getting digital content on screens."

Laser projection

With respect to the impact of laser-illuminated projection, the praise was nearly unanimous. Director **Keith Melton** feels that "regular digital projection (2K or 4K) is not as good as film projection, in terms of resolution and clarity of image. However, I do prefer the rock-steady, dust-free look of digital projection." He calls laser systems "game changers," a term many other respondents used. "I have heard several die-hard film people say they also prefer the look of a laser projected image vs. a film projected image."

Tony Hardy, theater manager at the **Pink Palace Museum** in Memphis, TN, which switched from IMAX film to xenon-powered **Barco** digital projection in 2014, says, "Better, brighter images! I've been very impressed with what I've seen." Christie's Harris praises laser's "improvements in color gamut, brightness, and contrast. Solid state is the future. Changing lamps out will soon be obsolete, which will simplify maintenance. And 3D can finally be achieve satisfying brightness with lasers."

Don Kempf, president of **Giant Screen Films** and D3D Cinema, says "Digital lasers — whether dome or 3D — offer museum-based giant-screen theaters an opportunity to re-energize their messaging" as premier venues with state-of-the-art technology. DeAmicis was somewhat cautious on that point: "I'm a little curious that I haven't been hearing much about the marketing impact as institutional theaters have started to convert, but perhaps it is too early in the life cycle."

There were a few skeptical voices, however. **Tim Sassoon** of **Sassoon Film Design** is critical of the look of the 3D systems used with laser projection: "The spectral slices are tuned so tightly that the image has a tendency to look rather 'plasticky.' The glasses have really improved, but I'd like to see more color depth in the images. This was never a problem with film prints and linear polarization."

As the owner of a multiplex chain, **Goodrich Quality Theatres**, **Bob Goodrich** is more closely focused on the

bottom line, and hasn't yet seen a compelling economic case for laser projection. "When laser costs work, we'll shift to it."

Digital production

When it comes to shooting, most filmmakers still see a need to capture on film. Cinematographer **Reed Smoot** says, "While digital improves almost hourly, it still hasn't caught up to the 15/70 capture [resolution] of 12K. Current film stocks have never been better than they are right now. Laser digital projection is amazing, but 15/70 projection with prints from the negative still deliver about 12K."

Fellow DP **James Neihouse** says, "There are times when digital capture is the only choice, especially in very low light situations," but adds, "I still think that film is the best capture medium for the giant screen in most cases."

MacGillivray agrees that digital has its place, but "15/70 film capture still yields the finest results."

Director and VFX producer **Sean Philips** also thinks that 15/70 is still best "for aerials and wide vistas, but not for long. I'm currently shooting with one of the 8K cameras, and in tests the image is superior to tiling several 6K cameras."

Melton has also been working with new cameras. "The 8K capture of the Sony F-65 and the SRDM transcoding we did on ***Mysteries of China*** has produced the best looking digital image I've seen to date." He proposes that an array of digital cameras, "using several (4 or more) digital 6K or 8K cameras, and then 'stitching' those images to create one massive image, can actually surpass the resolution of 65mm film." (Christie's Harris has demonstrated an array with two 4K cameras.)

However, Imax co-founder **Graeme Ferguson** and director **Toni Myers**, who have both worked with film as long as anyone in the industry, have good things to say about shooting digital for ***A Beautiful Planet***. Myers says, "The dynamic range of the digital medium allowed us to get scenes, such as the beautiful night views of Earth and stars in space, which over the previous 30 years and six films, we'd been unable to capture because of the slow speed of 70mm negative."

Director **Phil Streather** points out an inherent problem with shooting film these days. "If a film was made 100% (or at least the majority) on film, then printed from original neg and projected in film, the result is spectacular. However, most films are not made this way, and use a digital intermediate [DI]. The recording devices for making neg from DI's are 4K at best, and [use] old technology. The inherent quality of film, even when it has been scanned at 11 or 8K, is radically reduced by this recording process."

The IMAX laser projectors at the Pacific Science Center in Seattle, WA.

The future

Looking to the future of GS cinema, filmmaker Stephen Amezdroz says, "I hope there's always somewhere we can go and see film. I don't want to see it washed away, and the digital world take over absolutely everything. I'm so thankful for people who still drag out film cameras and capture pieces on film. There's just a certain quality and magic to that. There's a certain discipline that goes with it as well."

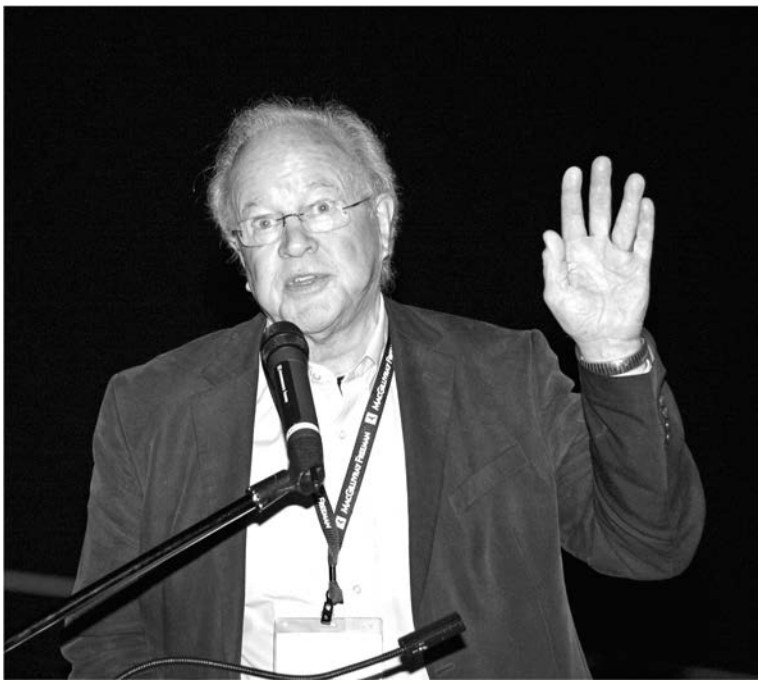
Paul Wild of **IMAX Victoria** in British Columbia, Canada, is less sentimental about film. "As good as film has been, including building the industry that we now toil in, its time has come to move over for the next generation of capture and projection systems to carry the torch."

Many others pointed out that it's the story that counts, not the medium. Memphis' Hardy says, "Good films, great experiences. That's the legacy! How these films are captured or projected does not really matter to audiences. They just want a *great* experience!" **Peter Bak-Larsen**, of the **Tycho Brahe Planetarium**: "We need to listen to our audience more than to ourselves. Our audience is our future. We need them more than they need us. Let's start to make ourselves interesting again."

Many point out what is perhaps the most important role film can play in the digital age: archival storage. Imax's chief quality officer, **David Keighley**, undoubtedly the industry's greatest archivist, says, "In its landmark report, 'The Digital Dilemma,' the **Academy of Motion Picture Arts and Sciences** raised strategic issues in archiving and accessing digital motion picture materials, including the fact that it is 11.5 times more expensive to archive digitally versus archiving on film. The chances of your grandchildren being able to see your digital movie are close to zero if you do not make a film element for protection. Generations not born yet will thank you for your foresight if you heed this heads-up."

We'll give Stephen Low the final, semi-serious word: "In the thirty-first century they will still be watching old 15/70 films, and will say, 'Wow, look how beautiful the planet was before we wrecked it.' Sorry, but you asked me to look into the future."

LF Examiner sincerely thanks all of the people who responded to our survey with thoughtful answers on short notice.



Cinema pioneer Douglas Trumbull.

*(from **HFR** on page 1)*

Everything old is new again

To paraphrase Newton, we all stand on the shoulders of giants. What Hollywood has recently called HFR — 48 fps — is not new. **Thomas Edison**'s assistant, **William Dickson**, made the first movies over a century ago at 40–46 fps, single-flash, to get an acceptable flicker rate. But then the **Lumiere Brothers**' cost-cutting invention triple-flash projection, providing a tolerable level of flicker, dropped frame rates to around 16–18 fps.

With the advent of sound in films in the 1920s, the frame rate was raised to a standardized 24 fps with double-flash shutters. That's where frame rates have stayed for most of the last 100 years.

Television posed competition for movies in the 1950s, and innovators such as **Mike Todd** experimented with 30 fps 5-perf 70mm in the 1950s for his big-screen **Todd-AO** process. The first two Todd-AO 70mm features, ***Oklahoma!*** (1955) and ***Around the World in 80 Days*** (1956), were shot and projected at 30 fps. **Cinerama** used 26 fps (!?!). But neither system really caught on enough to change the old 24 fps film standard.

Decades later, **Douglas Trumbull** built on Todd's work and patented the 5-perf, 65mm, 60 fps, **Showscan** film process in 1982. This was a distinct improvement over Edison and Dickson's 46 fps. Trumbull did physiological testing of viewers' brain waves, pulse rates, and galvanic skin response, and found their stimulation and emotional responses peaked at around 72 fps, but settled on 60 fps for practical reasons.

Engineers **Paul Panabaker**, **Ken Baker**, and I did our own tests at **Imax Corporation** in the late 1980s under Imax co-founder **Graeme Ferguson** and my mentor, **Bill Shaw**. We set the frame rate for IMAX HD at 48 fps, and co-directors **Colin Low** and **Tony Ianzelo**, of the **National Film Board** of Canada, made ***Momentum*** for **Expo '92** in Seville, Spain.

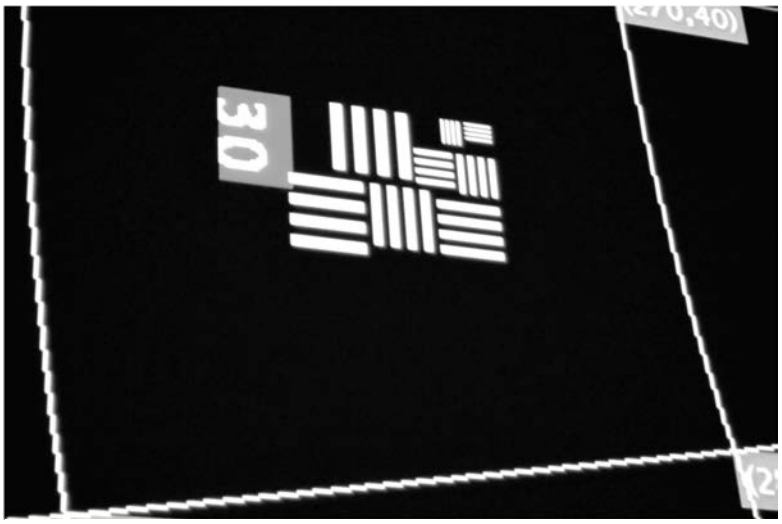
We used 48 fps partly to save light, film, and mechanical wear (the last of which goes up as the square of rotational velocity), and partly for easy down-conversion to 24 fps film by skip printing.

The filmmakers exploited many of the benefits of higher frame rates in *Momentum*. The biggest advantage was that the higher sampling rate and single-flash projection greatly reduced strobing and judder, making faster motion possible. But we were all slightly surprised that even slow-moving static shots benefited, with finer detail and more of a sense of "being there." DP **Ernie McNabb**, Ianzelo, and Low thought this was due to sending more information to our brains, the equivalent of three gigabytes (*not gigabits*) per second of bandwidth. (By comparison, the Christie 4K120 projector now delivers 6.4 gigabytes per second, about twice as much as IMAX HD.)

So why didn't IMAX HD survive? Cost, mainly. On the production side, filmmakers hated using up a 1,000-foot 15/65 film mag load in only 90 seconds of shooting. The doubled frame rate took twice as much light, raising production costs and reducing possibilities of filming in low natural light. Doubled stock, processing, and print costs were also tough to swallow for everyone. And mechanical wear is four times as great at 48 fps, making maintenance of both cameras and projectors more frequent and costly.

On the exhibition side, projector upkeep over the giant-screen network for dual 24/48 mechanical projectors was improbably expensive and impractical, according to Panabaker. We had to invent huge new film platters and rewind mechanisms, due to the doubling of the volume and weight of a 48-fps show. So our market stuck with 24fps and IMAX HD died out. It was a classic chicken-and-egg problem. No more 48-fps films were made.

You have probably seen **James Camer-**



The Christie D4K 2560 clearly resolves a 4K test chart's single pixel lines.

on's HFR test and **Peter Jackson**'s 48-fps feature, *The Hobbit* (2012), which attempted to push Hollywood films back to 48 fps. Unfortunately, it seems that ultra-realism can backfire in fiction films. The higher frame rate revealed all the flaws in *The Hobbit* makeup, costumes, sets, and acting, and somehow broke the suspension of disbelief that we have learned from 100 years of watching film at 24 fps. Many viewers complained of its "soap opera" or "video" look.

Exactly how or why is not clear. With the double- or triple-flashed 24fps "film look," we are literally sitting in the dark half of the time while watching a movie. Perhaps our brain fills in the holes, and that helps our imagination. Many people (including me) found that *The Hobbit* also did not translate so well in 48fps 3D IMAX theaters. The motion was still too extreme to read well on our very wide field-of-view screens.

Maybe Cameron's ***Avatar 2***, also being shot in HFR (although it's not clear exactly which rate), will change all that next year. Maybe not.

Trumbull raised the bar even higher when he showed us ***UFOTOG*** on a Christie Mirage projector in 3D 120 fps at the GSCA conference in Toronto in 2014. His MAGI process looked stunningly realistic. This was the first 4K 120 fps screening in 3D, and Christie's **Larry Paul** worked extensively to help Doug out.

It's unfortunate that pioneers like Trumbull and Jackson sometimes end up with lots of arrows in their backs. But Doug is pushing the technology forward and remains at the forefront of movie research after decades of brilliant work. We have to find a business model to overcome the old chicken-and-egg problem of getting a stream of film content. We at GSCA are good at that and perhaps could help.

The opportunities of digital

Let's delve deeper and see how digital changes everything for HFR. We finally have a real chance to say good-bye to strobing in giant-screen theaters, especially in domes.

Digital HFR gives us almost all of the advantages of film HFR, with only a few of the disadvantages:

- Digital storage is cheap, lightweight, compact, and requires no processing, compared to bulky film rolls.
- No more short camera loads or huge projection platters.
- No mechanical wear in capture or projection. Light sensors (in cameras) and DMDs (in projectors) are solid state and camera shutters are electronic.
- Camera low-light capability is improving all the time.
- Cinema projectors with an integrated media block can show a choice of frame rates with software upgrades
- Christie TruLife electronics enables the first and (so far) only 4K DLP at 120 fps, with the highest bandwidth available, at up to 1.2 gigapixels per second

HFR is mainly about increasing dynamic resolution. When the scene or our eyes are static, we achieve a maximum resolution on the fovea of about one arc-minute – one sixtieth of a degree. But for motion, the periphery of our eye's retina is important too. Unlike most displays, eye resolution is not constant; it varies widely over the retina.

There are more than 100 million photoreceptors in a typical good eye, consisting of two types of structures: about six million cones for color, and around 100 million rods for achromatic vision. The rods are smaller and closer together than the cones. The cones are concentrated in a high-density area called the fovea, but are few and far between out in the periphery, and surprisingly absent in an optical blind spot where the optic nerve exits.

It always amazes me how well our eyes and brain compensate for this blind spot. We build up a more detailed model of the world via darting eye movements known as saccades. Then visual memory or "persistence of vision" affects how our brain imagines and renders the world, including completely removing our blind spot.

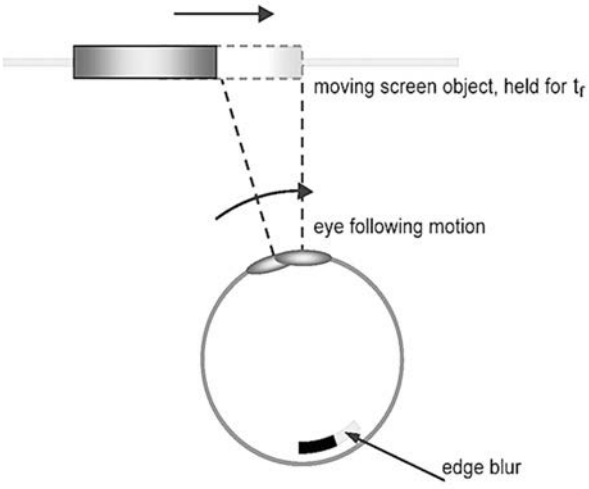
The Christie D4K projector and lens we showed at the HFR demo in March has 4,096 pixels of horizontal resolution, providing eye-limited 20/20 vision of 4,096 arc minutes/60 arc minutes per degree (i.e., 68.3 degrees). Audience members sitting within 17.7 feet of our screen and seeing a 68-degree field of view were able to resolve single pixel lines on the 4K test chart. (*See picture at bottom left.*) We call that static resolution of 4,096 x 2,160 pixels.

When we start to move that chart, or move our eyes or body, it is a totally different matter. The dynamic resolution depends on frame rate, shutter angle, and speed of motion, among other things. (*See Pierre Routhier's article "Motion vs. Resolution in GS Productions" in LF Examiner, Dec. 2105, for more details.*)

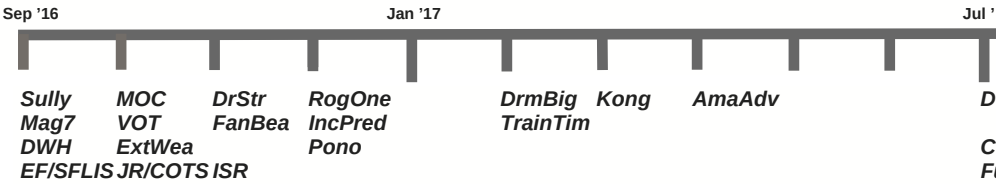
Some motion blur is unavoidable with frame-based, sample-and-hold displays, as our eyes try to track motion. Virtually all monitors and projectors put up a series of

*(see **HFR** on page 14)*

HRF reduces motion blur and smearing



Source: Hainich, Bimber – Display Fundamentals & Applications



All films are 3D unless noted, underlined titles are 2D
* New listing.
Updated information is printed in **bold**.
Unless noted, all films run about 40 minutes.
Some titles with limited release territories are not listed.

Mysteries of China
Giant Screen Films, Top Production China; distributor: Giant Screen Films; director: Keith Melton; producers: Don Kempf, Andy Wood, Keith Melton, Li Huixing; DP: Reed Smoot; script: Mose Richards. Release: Oct. 7.
– *Post-production is under way.*

Voyage of Time
Sophisticated Films; distributor: Broad Green Pictures; director, writer: Terence Malick; producers: Dede Gardner, Nicolas Gonda, Sarah Green, Grant Hill, Brad Pitt, Bill Pohlad, Andreas Roald, Sophokles Tasioulis; DP: Paul Atkins; score: Ennio Morricone; executive producers: Tanner Beard, Mary Bing, Yves Chevalier, Ryan Rettig, Donald Rosenfeld. Release: Oct. 7.

Extreme Weather (wt)
National Geographic Studios; distributor: National Geographic Studios; director, producer, DP: Sean Casey; script: Mose Richards; executive producer: Brooke Runnette. Narrator: Michael C. Hall. Release: Oct. 15.
– All filming is complete.
– In final stages of post-production.
– August: record narration, mix sound.

Jack Reacher: Never Go Back
Paramount Pictures; distributor: Paramount Pictures; director: Edward Zwick. Cast: Tom Cruise, Cobie Smulders, Robert Knepper. 2D. Release: Oct. 21. DMR.

Inferno
Sony Pictures; distributor: Sony Pictures; director: Ron Howard. Cast: Tom Hanks, Felicity Jones, Ben Foster, Irrfan Khan, Omar Sy, Sidse Babett Knudsen. 2D. Release: Oct. 28. DMR.

Conquest of the Skies (formerly *Wild Flight 3D*)
Colossus Productions, Atlantic Productions; distributor: Atlantic Productions; director: David Lee; producer: Anthony Geffen; writer: David Attenborough; DPs: Paul Williams, Peter Parks, Chris Parks; executive producer: Anthony Geffen. Release: October.
– Post-production is under way.

In Saturn's Rings
SV2 Studios; distributor: BIG & Digital; director, producer, writer, executive producer: Stephen van Vuuren. 2D. Release: Fall.

Dr. Strange
Warner Bros.; distributor: Warner Bros.; director: David Yates. Cast: Eddie Redmayne, Ezra Miller, Colin Farrell, Jon Voight, Katherine Waterston, Ron Perlman, Samantha Morton. Release: Nov. 4. DMR.

Fantastic Beasts and Where to Find Them
Marvel Studios; distributor: Walt Disney Studios; director: Scott Derrickson. Cast: Rachel McAdams, Benedict Cumberbatch, Tilda Swinton, Mads Mikkelsen, Chiwetel Ejiofor. Release: Nov. 18. DMR.

Rogue One
Lucasfilm; distributor: Walt Disney Pictures; director: Gareth Edwards. Cast: Felicity Jones, Mads Mikkelsen, Alan Tudyk, Ben Mendelsohn, Donnie Yen, Diego Luna, Forest Whitaker. Release: Dec. 16. DMR.

Incredible Predators (wt, formerly *Predators*)
Silverback Productions, BBC Earth; distributors: BBC Earth, Giant Screen Films; director, producer: Alastair Fothergill; DP: Jamie McPherson; score: George Fenton; executive producers: Neil Nightingale, Alastair Fothergill. Release: December.
– Post-production is under way.

Pono: The Secret of Hawaii
Happy Planet Productions; distributor: tba; director, DP, writer: Pierre Hugues Routhier; producers: Richard W. Kroon, Margaret Goode; score: Cody Westheimer. Executive producers: Pierre Hugues Routhier, Richard W. Kroon. Cast: "Uncle" Earl Kamakaonaona. Release: December.
– Location filming on the Islands of Hawaii began in 2014 and will wrap in 2016.

Dream Big: Engineering Wonders of the World (wt)
MacGillivray Freeman Films; distributor: MacGillivray Freeman Films; director: Greg MacGillivray; producer: Shaun MacGillivray; DPs: Brad Ohlund, Greg MacGillivray, Ron Goodman; script: Stephen Judson, Jack Stephens; score: Steve Wood. ***Release: Feb. 17, 2017.***
– July: filmed in Phoenix and Scotland
– August: will film in France, Italy, San Francisco and Las Vegas

Train Time (wt)
Stephen Low Company; distributor: Stephen Low Company; director: Stephen Low; producer: Pietro Serapiglia. 2D. Release: February 2017.

Kong: Skull Island *
Kong: Skull Island invites audiences on an uncharted journey into the heart of one of the greatest myths.
Legendary Pictures; distributor: Warner Bros.; director: Jordan Vogt-Roberts. Cast: Brie Larson, Tom Hiddleston, Samuel L. Jackson, Toby Kebbell, Tian Jing, John Goodman. Release: March 10,2017. DMR.

Amazon Adventure
SK Films; distributor: SK Films; director: Mike Slee; producers: Jonathan Barker, Wendy MacKeigan, Mike Slee, Yuri Sanada; DPs: Gerry Vasbenter, Richard Kirby; script: Wendy MacKeigan, Carl Knutson; executive producers: Jonathan Barker, Sean B. Carroll. Release: April 2017.
– June: Filmed in London, Macclesfield, and at Darwin's home (Down House) in Kent.
– July-September: Began filming in various locations in Amazonas State, Brazil.

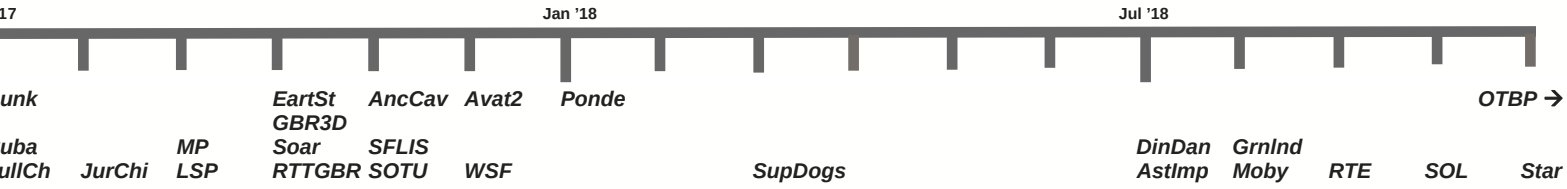
Dunkirk *
Allied soldiers from Belgium, Britain, Canada, and France are surrounded by the German army and evacuated during a fierce battle in World War II.
Warner Bros.; distributor: Warner Bros.; director: Christopher Nolan. Cast: Tom Hardy, Cillian Murphy, Harry Styles, Mark Rylance, Kenneth Branagh, James D'Arcy. 2D. Release: July 21, 2017. DMR.

Cuba
Golden Gate 3D; distributor: Giant Screen Films; director, producer: Peter Chang. Release: Summer 2017.

Earth Story (wt)
December Media; distributor: MacGillivray Freeman Films; directors: Russell Scott, Stephen Amezdroz; producers: Stephen Amezdroz, Matt Downey; script: Klaus Toft; executive producers: Tony Wright, Stuart Menzies. Release: October 2017.
– September: Filming will begin in the highlands of Iceland.

Great Barrier Reef 3D (wt)
December Media; distributor: MacGillivray Freeman Films; directors: Richard Fitzpatrick, Stephen Amezdroz; producer: Stephen Amezdroz; script: Klaus Toft; DP: Richard Fitzpatrick; executive producers: Tony Wright, Stuart Menzies. Release: October 2017.

Maximum Power *
Maximum Power explores the physics surrounding the science of electricity from electrons and amps to volts, watts and current.
Masters Digital, 144 Productions; distributor: tba; Release: Fall 2017.



Soar
RPG Productions, Soaring the West, Inc.; distributor: tba; director: Matthew Murray; producers: Jennifer Casey, Rick Gordon; DP: Brandan Carlson; executive producers: Jennifer Casey, Rick Gordon. Release: fall 2017.
– July: Filmed world record high-altitude flight in Patagonia, Argentina.

Ancient Caves (wt)
Oceanic Research Group; distributor: MacGillivray Freeman Film Distribution; director: Jonathan Bird; producers: Jonathan Bird, Christine Bird; DP: Jonathan Bird; script: Art Cohen; score: Bruce Zimmerman. For 15/70 dome only. Release: November 2017.
– June: Filmed scientists in a cave in Minnesota.
– Fall: Shooting in Death Valley, France, Bahamas, Mexico.

Avatar 2
Lightstorm Entertainment; distributor: Twentieth Century Fox; director: James Cameron. Cast: Zoe Saldana, Sigourney Weaver, Sam Worthington, Stephen Lan. Release: Dec. 25, 2017. DMR.

Full Charge: The Power of Innovation (wt, formerly *Icarus' Revenge*)
N3D Land Films; distributor: nWave Pictures; directors: Pascal Vuong, Ronan Chapalain; producers: Catherine Vuong, Pascal Vuong, Eric Dllens; script: Pascal Vuong, Ronan Chapalain; DP: Vern Nobles; score: Franck Marchal; executive producers: Franck Savorgnan, Christian Fry, Jacob Lienau. Cast: Bertrand Piccard, André Borschberg. Release: 2017.
– June: Aerials over Oahu, Molokai, Maui, Big Island.

***Jurassic China* ***
On the green slopes of giant volcanoes lives Microraptor. Will it thrive long enough to give its chicks a chance to flee and venture out of their nest?
Saint Thomas Productions; distributor: K2 Communications. 2D. Release: 2017.

Lightspeed Pioneers
No Final Frontier Productions, Mind's Eye Creative, Wonder Mill Cosmos; distributor: BIG & Digital (flat-screen), Evans & Sutherland (fulldome); director, producer, writer: Lee Fanning. 2D. Release: 2017.

Return to the Great Barrier Reef
Atlantic Productions; distributor: tba; director: Martin Williams; producer: Anthony Geffen; script: David Attenborough; DP: Tim Cragg; score: Joel Douek; executive producer: Anthony Geffen. Cast: David Attenborough. Release: 2017.
– Post-production is under way.

Secrets of the Universe
Stephen Low Company; distributor: K2 Communications; director: Stephen Low; DP: Mark Poirier; executive producer: K2 Communications. Release: 2017.

***Wingsuit Flyers* ***
Soar with the world's premiere wingsuit pilots, Jeb Corliss and Joby Ogwyn, as they fly "around the world" their way.
Grand Schema, Inc.; distributor: K2 Communications, Giant Screen Films. Release: 2017.

***Pondemonium* ***
Pondemonium is a 3D giant screen film shot in a suburban woods where humans and wildlife mingle.
Archipelago Films, Arise Media; distributor: tba. Release: January 2018.

Superpower Dogs (wt)
Cosmic Picture; distributor: tbd; director: Daniel Ferguson; producers: Taran Davies, George Duffield, Dominic Cunningham-Reid, Daniel Ferguson; script: Daniel Ferguson; DP: Reed Smoot. Release: spring 2018.
– June: Filmed urban search and rescue puppies in training in Miami with Florida Task Force One K9 unit.

***Dino Dana: Journey to the Center of the Herd* ***
Nine-year-old Dana is ecstatic when she is invited to join a dinosaur dig.
Sinking Ship Entertainment; distributor: Sinking Ship Entertainment; script: J.J. Johnson, Christin Simms; executive producers: Matthew Bishop, J.J. Johnson, Blair Powers, Christin Simms. Release: summer 2018.

***Greenland* ***
Greenland is the story of adventuring with a purpose, as renowned climate scientists and legendary extreme athletes voyage beyond the limits of human exploration.
Golden Gate 3D; distributor: Giant Screen Films; director, producer: Peter Chang. Release: Summer 2018.

***Oceans: The Blue Planet* ***
An extraordinary journey of discovery and wonder, transporting the audience to the deep, mysterious worlds of our oceans.
BBC Earth, Alucia Productions; distributor: BBC Earth, Giant Screen Films. Release: Dec. 2018.

***Asteroid Impact* ***
Asteroid Impact will reveal the origins of asteroids and the effects of previous Earth impacts.
Imax Corporation; distributor: Imax Corporation. Release: 2018.

***Moby Duck* ***
After a huge storm batters a ship in the north Pacific, its cargo of thousands of rubber ducks is lost at sea.
Imax Corporation; distributor: Imax Corporation. Release: 2018.

Return to Everest (wt)
MacGillivray Freeman Films; distributor: MacGillivray Freeman Films; director: Greg MacGillivray; producer: Shaun MacGillivray; script: Stephen Judson; DPs: Brad Ohlund, Michael Brown, Greg MacGillivray, Jack Tankard, Ron Goodman; score: Steve Wood. Release: 2018.

Sea of Love 3D (wt)
Achtel Pty. Ltd., House of 3D; distributor: tba; director: Pawel Achtel; producers: Pawel Achtel, Stuart Monksfield; DP: Pawel Achtel; script: Jan Aldenhoven. Release: 2018.
– July: Filmed humpback whales in Tonga in 6K 3D, HFR, HDR.

***Star* ***
Star begins as a fictional story about kids in the city who see the stars for the first time.
Spring Garden Pictures; distributor: tba; director: Richard Hoffmann. Release: 2018.

***The Final Passage* ***
Made entirely using 3D models, The Final Passage is an uninterrupted journey through the Chauvet-Pont-d'Arc Cave.
Rup'art Productions; distributor: Rup'art Productions; director: Pascal Magontier; producer: Martin Marquet; DP: Hugo Barbier. Release: tba.

***Fish Eye Project* ***
Imagine your audience can go diving in real-time without getting wet.
Fish Eye Project; distributor: Fish Eye Project. Release: tba.

***Wild Bahama* ***
Wild Bahama is the Bahamas beyond the white sand beaches.
Parallax Film Productions; distributor: Parallax Film Productions. Release: tba.

*(from **HFR** on page 11)*

static frames, one after another. The images are not really moving continuously and smoothly like real objects. When our eyes try to track the objects, we get motion blur, similar to long exposure times on moving objects with a still camera. Given the realities of eye physiology, dynamic resolution seems to have a lot to do with density of information as well as angles and motion.

Say you want no more than six arc minutes (1/10th of a degree) of motion-induced blur. At 60 fps you can move the image no more than about six degrees per second before you exceed this six-arc-minute limit. At 120 fps that doubles to about 12 degrees per second. This means that motion-induced blur scales quite linearly. If you ran at 240 frames per second the speed would double again.

Sixty frames per second has two and a half times the detail of 24 fps. Pierre Routhier described this result in more detail in his article, but for now just remember that it won't do much good to double resolution from 2K to 4K (with pixels half the size) if you don't also bump up your frame rate from 24 fps, because the smaller pixels will simply blur out faster and degrade faster with motion. This means that dynamic resolution via frame rate is just as important as static resolution (the number of "K"s). After all, these are moving pictures, not stills.

As every giant-screen filmmaker knows, moving resolution is far lower than static wide-shot resolution because of smearing, strobing, and the motion blur effect. There is a complex interdependence between spatial and temporal resolution. Frame rate affects the interactions between eye (or scene) movement, blur, resolution, and aliasing. In fact, if you just jump from 2K to 4K projectors, improvements in static resolution will highlight the issues with dynamic resolution. You don't get as much benefit as you might hope – unless you also double the frame rate. Dynamic resolution will never match static resolution like our test chart, but higher frame rates certainly help with motion.

So how does 24 fps compare to 60 fps? If you sample 2.5 times as often, each individual exposure is obviously shorter, so the 60 fps frames will be sharper, with less motion blur. But single-flashing each frame in projection also seems to lead to less strobing and judder, compared to double- or triple-flashing 24 fps images, which is a common technique used to reduce flicker in film projectors.

There is no doubt that HFR improves fast-action sequences and creates smoother pans and flyover sequences, which we knew from ShowScan and IMAX HD decades ago. At 60 or 120 fps motion is almost silky smooth, and details in each frame are sharper than 24 fps. Pierre's 120 -fps X Games footage looked stunning.

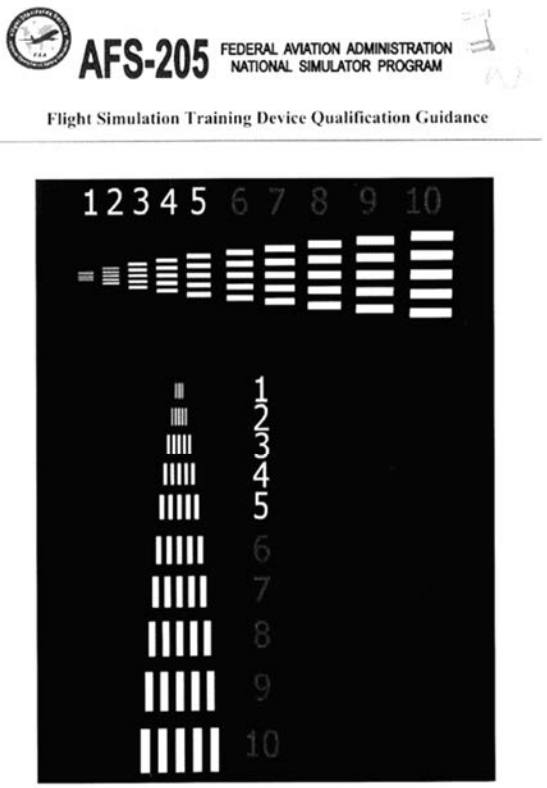


Figure 1 – Smear or Persistence Test Pattern - The numbers correspond to the size in arc minutes of the white bars and spaces between them as measured at the pilot eye-point.

HFR in simulators

Let's look at more evidence that HFR improves the sense of realism and immersion for real-world subjects shot for giant screens, even if it works against the fantasy and "film look" in movies like *The Hobbit*. Sometimes HFR can reveal too much, like obvious makeup, fake sets, or even marginal acting, making it look more like a video of a stage play than another reality. I don't think HFR is necessarily ideal for every genre. But for our types of reality-based, educational, nature documentaries, HFR is perfect.

Many of you fly in jets. Every airline pilot has to train rigorously in FAA Level-D simulators. It's important for moving images in simulators to be as realistic as possible. We don't want jets to collide. Like video games, most simulators run at 60 fps and are tested with moving bars at 10 degrees per second to see which images are resolved clearly. To pass and certify as Level D, five-arc-minute bars on the pattern must be resolvable at 10 degrees per second motion. (*See image at left.*) At this speed, some of the smaller white and black bars will blur completely together, making gray blobs, and some of the bigger bars will look more distinct. At Christie, our latest simulators often run 120 fps for fast military jet simulators. The giant-screen industry can learn from that.

The problem of flicker

Digital HFR eliminates flicker. Flicker perception is very dependent on illumination level, field of view, shuttering method, duty cycle, and other factors. For example, unlike 35mm Geneva projectors, IMAX HD rolling loop projectors' shutters were narrower than the frame, so the frame never went completely black. We could get acceptable flicker at our light levels at 48 fps, compared to 60 fps for ShowScan, which completely modulated 100% to black.

As our projectors and screens get brighter, higher flicker frequencies than 48 Hz are important, because our eyes get more sensitive to flicker as the display gets brighter. For example, years ago I was bothered by 50 Hz CRT flicker on TVs in the UK. The televisions were bright enough for me to see the flicker, and I was

more used to 60 Hz TVs.

When showing 3D, digital cinema projectors usually triple flash each frame of the 24 fps film for each eye. This gives each eye a 72 Hz field rate, for a total of 144 displayed fields per second, resulting in no observable flicker. It is postulated that double flashing HFR content to get to 192 or 240 Hz might be even better than single-flashing, although the jury is still out about what is optimal for the human visual system in terms of temporal artifacts like judder and stutter.

I prefer the look of single flashing at a high frame rate, as we showed in our March demo. Unlike IMAX HD, our screen went completely black for a short period of 626 microseconds per frame, which is the default setting. (That measurement was taken using a photodiode during our tests.) The result is maximized brightness and minimized flicker. The period of one full frame of the white screen is roughly 8.3 ms, which corresponds to 120 frames a second, or 120 Hz.

At our demo, we showed each frame of 120 fps content only once. For 60 fps content, we showed each frame twice. For 24 fps content, we showed each frame five times. The server delivered frames at a constant 120 fps to the projector, for simplicity and reliability.

Christie did a series of HFR perception experiments with **York University** and **Sheridan College**. The results gave strong evidence that college-aged viewers prefer content at rates higher than 24 fps. The traditional 24-fps "film look" might not be as important to younger generations as to some of us. My colleague, **Roy Anthony**, from Christie Research and Innovation, worked with Sheridan's Screen Industries Research and Training Centre team to compare film speeds and shutter angles for 3D filming. York perceptual scientists devised double-blind procedures to compare 22 clips shot at various frame rates and shutter angles. Surprisingly, shutter angle did not play as important a role as frame rate did when comparing 24, 48, and 60 fps. Five image-quality metrics were tested: realism, motion smoothness, blur/clarity, quality of 3D stereo depth, and overall preference. Viewers clearly preferred 60 fps over 24 fps: 60 fps was judged to be significantly more real, smoother, sharper, with better 3D, and generally better than the same shot at 24 fps.

The conclusions were very clear. But the jump in preference from 48 to 60 fps was smaller than the jump from 24 to 48 fps. The most rapid action shots benefited the most from 60 fps, as you would expect. Remember that just about all simulators, and most games, run at 60 fps or higher these days. Perhaps 24 fps was too stuttering, blurry, and old-school for these viewers.

Although 24 fps is definitely cheaper, 48 fps digital does not cost twice as much to shoot or project today, as it used to with IMAX HD film.

HFR's time has come

It's time to reconsider frame rates for giant-screen films. Clearly, HFR improves our ability to capture sports, theater, dance, and other real-world scenes. Younger viewers in particular seem to prefer it. Recent tests and demos in fulldome theaters show that HFR on domes is a winning combination. Variable frame rates are also an intriguing possibility with digital projection.

I hope our demos at GSCA and the survey results will convince you it is time to go against the flow, be contrary, and raise the giant-screen frame-rate standard above 24 fps, especially for dome films. If our goal is "being there" and not just comic-book fantasy or flashy imaginative Hollywood remakes, HFR could set us apart.

But don't take my word for it. Look for yourself. Come up close.

Gord Harris is senior program manager for research and innovation at Christie Digital Systems. The opinions in this article are his and not necessarily those of his employer. He can be reached at gord.harris@christiedigital.com.

*(from **SHORTS** on page 24)*

reports, the display is impressive, if not perfect. Philip Michaels, writing for TomsGuide.com, found the extra-wide field of view (210 degrees, instead of 110 degrees for most other systems) very compelling. "When the demo switched to the wider field of view, my knees actually buckled, and the engineer running the demo had to grab my arm to steady me."

TrustedReviews.com's Michael Passingham was less impressed. "I honestly never found the 110 degrees of the HTC Vive to be particularly restrictive because, for the most part, our brains fill in the periphery of our vision with what it thinks is there anyway." He added that the displays' 2560x1440 resolution, greater than the 1200x1080 of other systems, still wasn't enough. "The resolution bump isn't big enough to cure VR's biggest problem: visible pixels."

As we reported previously, Imax intends to partner with multiplex clients to build VR centers in theaters that would offer patrons an additional 7–10 minute VR experience after a feature. The company reportedly plans to open a standalone test venue in Los Angeles later this year, and subsequent tests in multiplexes in New York, London, and Shanghai after that.

SMPTE honors Trumbull, Cameron

The **Society of Motion Picture and Television Engineers** has announced its 2016 honors and awards, recognizing outstanding individuals who have contributed to the society's goals. Director **James Cameron** has been awarded honorary membership, the society's highest accolade, "for his determination to continuously improve cinematic storytelling through innovative technical methods."

Cinema pioneer **Douglas Trumbull** will be presented with SMPTE's Progress Medal, which "recognizes outstanding technical contributions to the progress of engineering phases of the motion picture, television, or motion-imaging industries." Trumbull is receiving the award for his "numerous contributions to photographic processes and technologies in VFX and HFR cinematography."

SMPTE's Honors and Awards Ceremony will be held in Los Angeles as part of its Annual Technical Conference and Exhibition in October. www.smpte.org.

Premiering This Month

Sully

"On Thursday, January 15th, 2009, the world witnessed the 'Miracle on the Hudson' when Captain Chesley 'Sully' Sullenbergerglided his disabled plane onto the frigid waters of the Hudson River, saving the lives of all 155 aboard. However, even as Sully was being heralded by the public and the media for his unprecedented feat of aviation skill, an investigation was unfolding that threatened to destroy his reputation and his career."

Produced and distributed by **Warner Bros**. Directed by **Clint Eastwood**. Cast: **Tom Hanks**, **Anna Gunn**, **Laura Linney**, **Aaron Eckhart**, **Sam Huntington**. 2D. Release: Sept. 9. DMR.

The Magnificent Seven

"Director **Antoine Fuqua** brings his modern vision to a classic story in ***The Magnificent Seven***. With the town of Rose Creek under the deadly control of industrialist Bartholomew Bogue, the desperate townspeople employ protection from seven outlaws, bounty hunters, gamblers and hired guns. As they prepare the town for the violent showdown that they know is coming, these seven mercenaries find themselves fighting for more than money."

Produced and distributed by **Sony Pictures**. Directed by Antoine Fuqua. Cast: **Chris Pratt**, **Haley Bennett**, **Denzel Washington**, **Matt Bomer**, **Ethan Hawke**, **Vincent D'Onofrio**, **Peter Sarsgaard**. 2D. Release: Sept. 23. DMR.

Deepwater Horizon

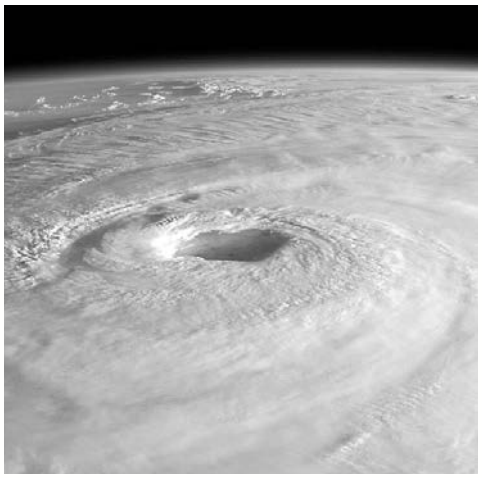
"Based on the true events that occurred on an oil rig in the Gulf of Mexico on April 20, 2010, the story chronicles the courage of those who worked on the Deepwater Horizon and the extreme moments of bravery and survival in the face of what would become one of the biggest man-made disasters in world history."

Produced and distributed by **Lionsgate**. Directed by **Peter Berg**. Cast: **Kurt Russell**, **Dylan O'Brien**, **Mark Wahlberg**, **Kate Hudson**, **Gina Rodriguez**, **John Malkovich**. 2D. Release: Sept. 30. DMR.

Earthflight

"***Earthflight*** is a totally immersive experience, taking the audience on an incredible flight across the world on the wings of birds. Revolutionary aerial techniques and state-of-the-art 3D cameras deliver the reality of flying right alongside the birds as we join a variety of different species on their seasonal journeys. As we fly with the birds on their migrations, they take us to some of the greatest sights and animal events on earth. Great white sharks spectacularly leap so close you could touch them, snow geese dash through Monument Valley and New York City with wing tips coming right out of the screen, and vultures soar miles above the earth then dive down to huge wildebeest herds below. It's a thrilling experience as the audience is plunged into the center of the flock. *Earthflight* travels deeper into the action than ever before."

Produced by **John Downer Productions** and **BBC Earth**. Distributed by BBC Earth and **Giant Screen Films.** Produced and directed by **John Downer.** Executive producers: **Neil Nightingale** and John Downer. Release: September.



Hurricane

"This is the true story of a 15,000-kilometer journey in the footsteps of one of the most devastating natural events on our planet: the Atlantic Hurricane. Our protagonist is both shatteringly destructive and vital to life on earth. At its conception it is just a breeze. As it sweeps across the African Sahel it becomes a life-giving monsoon before setting out across the Atlantic as a deepening depression. The hurricane is the film's main character, but the supporting cast is the men, women, plants, and animals that it encounters and affects on its journey, for better or for worse. We will experience the storm in 3D. Serene and exquisitely beautiful from space, at ground level in the face of the screaming wind, it is nothing less than terrifying."

Produced by **Ouragan Films** and distributed by **nWave Pictures**. Directed by **Cyril Barbançon**, **Andy Byatt**, and **Jacqueline Farmer**. Produced by Jacqueline Farmer, **Bertrand Loyer**, photographed by Cyril Barbançon, written by **Philippe Blasband**, Jacqueline Farmer, **Olivier Lorelle** and **Frédérique Zepter**. Cast: **Kristin Samuelson**, **John Flanders**, **Joe Fontana**, **Paloma Garcia Martens**. Release: September.

The Search for Life in Space

"For science the heavy lifting is over; a new era of space exploration has begun. It's the search to find something that changes everything: signs of life somewhere else in the universe. NASA is breaking ground on a new brand of science, astrobiology. We already know that life in space exists, because that's what we are, as are all things that live on our planet. Life In Space is a journey that takes us from the depths of the Pacific Ocean, to Europa, the ice moon of Jupiter, back in time to when Mars was a virtual Eden, and out into the far reaches of space in search of planets like ours. It will make you re-examine such fundamental questions as: 'Where did we come from?' 'How did we get here?' and 'Are we alone?'"

Produced by **December Media** and distributed by **MacGillivray Freeman Films**. Directed by **Steve Westh**, produced by **Stephen Amezdroz**, photographed by **Jim Frater**, written by **Klaus Toft**, scored by **Dale Cornelius**. Executive producers: **Tony Wright**, **Stuart Menzies**. Cast: **Lisa Kaltenegger**, **Chris Johns**. Release: September.

Ouragan Films

Bookings: September 2016 by Film

517 bookings of 79 films in 169 theaters

These listings to not include Hollywood films shown in multiplex IMAX theaters. Those films are listed when they are shown in non-multiplex theaters, and conversely, non-Hollywood giant-screen films showing on multiplex IMAX screens are also listed, where known.

Listings shown in **bold face** below are new or updated listings. The rest are unchanged from the previous issue.

The data on the following pages are ***not*** warranted to be comprehensive or accurate in every detail, despite our best efforts to make them so. They have been compiled from distributors, the Web, and other sources.

We will make every effort to improve the thoroughness, and accuracy of these data. If your theater or film is not shown here, please get in touch with us to update our listings.

Where a date is not shown, it means that no date was provided by the source or, in the case of a closing date, that no date has been set, or that the run is indefinite.

The key to film abbreviations is on page 21

Film	Theater	Open	Close
ACGOTS	Corpus Christi Lex	6/17/16	6/17/17
	Dayton	6/17/16	5/31/17
	Singapore DC	8/1/16	12/1/16
AirRacer	Hutchinson	1/1/15	12/31/16
AIWC	**Chandigarh**	**9/5/14**	**12/31/16**
	Sacramento Imx	5/1/15	12/31/16
Amazon	Syracuse MOST	4/1/16	5/31/17
AMMM	Gatineau	10/15	10/16
	Melbourne MV	7/1/16	
Animalop	Pittsburgh CSC	1/1/10	
AsterME	Jersey City	4/15/16	4/14/17
	Lehi	5/27/16	5/30/17
BeauPlan	Atlanta FMNH	4/29/16	
	Austin TSHM	4/29/16	
	Charlotte DP	4/29/16	
	Chattanooga TA	4/29/16	
	Chicago Imx	4/29/16	
	Cleveland	4/29/16	
	Copenhagen TBP	4/29/16	
	Denver MNS	4/29/16	
	Des Moines	4/29/16	
	Edmonton TWS	4/29/16	
	Fort Lauderdale	4/29/16	
	Huntsville USSRC	4/29/16	
	Indianapolis Imx	4/29/16	
	Jersey City	4/29/16	
	KSC 1	4/29/16	
	London SM	4/29/16	
	Los Angeles CSC	4/29/16	
	Melbourne MV	4/29/16	
	Montreal SC	4/29/16	
	Norwalk MA	4/29/16	
	Raleigh	4/29/16	
	Regina	4/29/16	
	Saint Augustine	4/29/16	
	Saint Louis SC	4/29/16	
	Saint Paul SMM	4/29/16	
	Salt Lake City Clark	**4/29/16**	**4/30/17**
	San Jose Tech	4/29/16	
	Seattle PSC 2	4/29/16	
	Shreveport	4/29/16	
	Sudbury	4/29/16	
	Tallahassee CLC	4/29/16	
	Tampa MOSI	4/29/16	
	Toronto OSC	4/29/16	
	Victoria DCI	4/29/16	
	Washington NASM	4/29/16	
Bugs	**Calgary TS**	**9/28/15**	**9/28/17**
	Columbus COSI	9/15/14	6/30/17
	Edmonton TWS	12/26/13	6/30/17
	Fort Worth	2/1/16	1/8/17
	Lodz CC	**8/24/15**	**8/24/17**
	Phoenix ASC	4/22/16	10/6/16
	San Diego RHF	7/1/14	6/30/17
	Vancouver TWS	3/11/06	6/30/17
CRA	Hartberg	3/25/15	12/31/16
	Philadelphia FI	**6/1/16**	**10/31/16**
	Pittsburgh CSC	**10/1/15**	**12/31/16**
CV	Alexandria BA		12/31/16
D-Day	Austin TSHM	5/1/14	12/31/16
	Chantilly		**10/30/16**
	Columbus GA NIM	5/23/14	12/31/16
	Erie	11/11/15	7/6/17
	Fort Worth	9/5/15	6/30/17
	Hastings	5/15/15	5/31/17
	Hutchinson	4/21/14	6/30/17
	Pittsburgh CSC	5/15/15	12/31/16
	Portland OMSI	3/16	3/17
	Raleigh	5/23/14	2/1/17
	Saint Louis SC	5/16/16	11/15/16
	Seattle PSC 2	3/29/14	6/30/19
	Spokane RP	4/1/16	9/5/16
	Sudbury	5/30/16	6/1/17
	Vancouver TWS	11/7/15	11/12/17
	Victoria DCI	3/21/14	12/31/16
	Washington NASM	5/23/14	10/30/16
DIA	**Hartberg**	**3/25/15**	**12/31/16**
DinoAliv	Detroit MSC	10/17/15	10/31/16
	Houston MNS	12/15/15	6/30/17
	Port of Spain	9/1/15	9/30/16
	Tampa MOSI	1/30/16	6/30/17
Dolphins	Boston MOS	4/9/16	10/9/16
	Fort Worth	5/28/16	12/31/17
	Speyer Dome		12/31/16
	Syracuse MOST	4/1/16	5/31/17
Dragons	Guayaquil	5/1/14	12/31/16
	Syracuse MOST	7/2/16	7/1/17
DSC	Dearborn THF	3/25/16	3/25/17
	Gatineau	8/5/16	10/4/16
	McMinnville	6/16/16	10/27/16
	Raleigh	1/16/15	1/15/17
Everest	Hartberg	3/25/15	12/31/16
FightPil	Chantilly	12/10/04	7/17
	Corpus Christi Lex	5/12/12	7/17
	Dayton	3/1/13	6/30/17
	Huntsville USSRC	7/1/13	7/1/17
	McMinnville	3/23/12	7/1/17
FMTTM	Saint Louis SC	7/1/16	12/31/16
FOTB	Apple Valley Imx	6/5/15	12/31/16
	Baton Rouge LASM	**9/1/15**	**8/31/17**
	Calgary TS	6/28/13	12/31/16
	Chicago MSI	2/28/14	6/30/17
	Cleveland	11/27/13	6/30/17
	Columbus COSI	9/1/14	6/30/17
	Davenport Put	2/15/13	6/30/17
	Edmonton TWS	12/26/13	6/30/17
	Gatineau	10/5/12	6/30/17
	Hampton VASC	3/29/13	6/30/17
	Harrisburg	2/2/14	6/30/17
	Hastings	3/17/13	6/30/17
	Houston MNS	10/4/12	12/31/17
	London BFI	9/6/13	1/31/17
	Louisville KSC	9/30/12	6/30/17
	Melbourne MV	3/21/13	9/16/16
	Memphis Pink	3/1/14	5/27/17
	Norwalk MA	5/22/15	10/7/16
	Nuremberg	11/19/14	12/31/16
	Orlando SC	3/1/14	6/30/17
	Peoria RM	**4/1/16**	**8/26/17**
	Pittsburgh CSC	3/15/13	12/31/16
	Portland OMSI	1/7/15	6/30/17
	Richmond SMV	5/1/13	6/30/17
	Sacramento Imx	8/13/13	6/30/17
	Saint Augustine	1/18/13	12/31/16
	Saint Paul SMM	**7/1/16**	**6/30/17**
	Salt Lake City Clark	2/8/13	8/6/17
	San Antonio 3D AMC	5/15/15	1/31/17
	San Diego RHF	**10/12/12**	**9/30/17**
	San Jose Tech	2/9/13	6/30/17
	Shanghai 3D STM	1/1/16	12/31/16
	Syracuse MOST	7/4/15	7/3/17
	Tallahassee CLC	1/18/13	6/30/17
	Valencia Spn	7/1/15	6/30/17
	Vancouver TWS	6/16/13	6/30/17
	Victoria DCI	4/5/13	6/30/17
	Washington NMNH	10/5/12	1/13/17
G3DNW	**Al Khobar**	**8/20/15**	**2/20/17**
	Apple Valley Imx	10/3/14	4/28/17
	Berlin CS	4/20/14	10/9/16
	Bogota Mal	6/24/16	6/23/17
	Boston NEA	2/15/16	12/31/16
	Budapest CC	4/24/14	5/21/17
	Davenport Put	10/17/14	10/16/16
	Guayaquil	4/20/14	5/4/17
	Hartford CSC	11/27/15	6/30/17
	Hastings	**2/10/15**	**6/10/17**
	Houston MNS	**6/6/16**	**5/31/17**
	Katowice CC	6/18/14	9/19/16
	Krakow CC	6/18/14	9/19/16
	Lodz CC	6/18/14	9/19/16
	Louisville KSC	**6/18/15**	**6/30/17**
	Lucerne	6/5/14	12/4/16
	Melbourne MV	4/11/16	4/10/17
	Moscow BFC	10/6/14	10/31/16
	Nuremberg	10/15/14	11/20/16
	Orlando SC	7/5/14	1/4/17
	Parker	7/30/16	1/27/17
	Philadelphia FI	**9/6/16**	**9/5/17**
	Poznan CC	6/18/14	9/19/16
	Prague CC	5/22/14	5/21/17
	Saint Augustine	4/1/15	4/30/17
	Seattle PSC 2	11/20/15	4/30/17
	Virginia Beach AMSC	5/28/16	5/27/17
	Warsaw CC	6/18/14	9/19/16
GC	Grand Canyon DCI	11/1/99	12/16
GCA	Grand Rapids Cel	4/22/16	4/21/17
	Paris Geo	7/1/14	12/31/16
	Richmond SMV	6/1/16	12/31/16
	Shanghai 3D STM		12/31/16
	Sinsheim	10/31/09	12/31/16
	Spokane RP	**5/1/15**	**9/5/16**
Gruffalo	Hastings	7/8/16	12/31/16
	Saint Augustine	1/1/15	12/31/16
GruffChi	Saint Augustine	2/1/15	12/31/16
	Sudbury	2/1/16	12/31/16
GWS	Boston NEA	5/31/13	6/30/17
	Galveston	6/28/14	12/31/16
	Portland OMSI	11/16/15	12/31/16
	Saint Augustine	8/9/13	9/8/16
	Seattle PSC 1	9/19/14	9/19/16
	Sudbury	3/3/16	3/31/17
	Tampa MOSI	1/1/16	12/31/16
HCBTD	San Simeon DCI	8/17/96	
HidUniv	**Glasgow**	**5/2/14**	**12/31/16**
	London SM	**10/18/13**	**12/31/16**
	Tallahassee CLC	**2/14/14**	**12/31/16**
	Valencia Spn	**4/1/14**	**12/31/16**
HOTB	Dongguan STM	3/1/16	2/28/17
HumpbWha	**Baltimore MSC**	**7/1/15**	**10/31/16**
	Boston NEA	2/13/15	12/31/16
	Copenhagen TBP	10/8/15	10/7/16
	Davenport Put	6/1/16	6/1/17
	Hague	6/28/16	6/17/17
	Houston MNS	3/13/15	3/15/17
	Indianapolis Imx	7/1/16	12/31/16
	Kuwait SCK	7/6/16	12/31/16
	Montreal SC	**9/23/16**	**6/16/17**
	Norwalk MA	**2/13/15**	**11/6/16**
	Nuremberg	4/30/15	9/30/16
	Paris Geo	**7/7/15**	**10/31/16**
	Pittsburgh CSC	**6/17/16**	**12/31/16**
	Raleigh	3/20/15	3/1/17
	Regina	11/20/15	11/19/16
	Richmond SMV	**3/14/15**	**12/31/16**
	Sacramento Imx	8/19/16	1/31/17
	Sinsheim	**5/21/15**	**1/31/17**
	Tallahassee CLC	2/20/15	12/31/16
	Tijuana	7/15/16	7/14/17
	Vancouver TWS	**10/9/15**	**12/30/16**
	Virginia Beach AMSC	**9/8/15**	**10/31/16**
Jerusale	Chicago Imx	2/19/16	9/1/16
	Columbus COSI	2/11/15	2/10/17
	Fort Worth	3/21/16	6/30/17
	Galveston	11/12/15	12/31/16
	Harrisburg	10/18/14	10/31/16
	Kansas City Sci	9/19/14	3/17/17

Film	Theater	Open	Close
	Louisville KSC	1/20/14	7/2/17
	Mexicali	2/9/16	2/9/17
	Peoria RM	11/14/15	11/13/16
	Pittsburgh CSC	3/7/14	12/31/16
	Portland OMSI	11/18/13	5/30/17
	Raleigh	2/21/14	2/28/17
	Saint Paul SMM	1/8/16	9/5/16
	Salt Lake City Clark	**11/22/13**	**12/31/16**
	San Jose Tech	3/27/15	6/20/17
	Speyer Dome	12/12/13	12/11/16
JIAC	**Baltimore MSC**	**9/15/15**	**9/14/17**
	Gatineau	7/17/15	12/31/16
JMCSO	Al Khobar	9/5/16	9/5/17
	Dearborn THF	2/27/15	12/31/16
	Edmonton TWS	5/20/16	11/20/16
	Galveston	3/6/15	3/6/17
	Gatineau	9/4/15	9/30/16
	Guayaquil	4/15/16	4/14/17
	Hangzhou LCSTM	1/1/16	12/31/16
	Hastings	2/11/16	2/11/17
	Keelung NMMST	1/1/16	12/31/16
	Kuwait SCK	7/17/15	7/17/17
	Lucerne	3/17/16	3/16/17
	Memphis Pink	6/25/16	6/23/17
	New Orleans	2/12/16	2/2/17
	Poitiers Solido	2/1/16	12/31/17
	Portland OMSI	2/20/15	2/27/17
	Saint Augustine	1/1/16	1/1/17
	San Diego RHF	7/3/15	3/17/17
	Seattle PSC 1	9/30/16	3/30/17
	Taichung NMNS	7/1/16	12/31/16
	Washington NMNH	3/20/15	3/20/17
JTM	Edmonton TWS	12/26/13	6/30/17
	London BFI		1/31/17
JTS	**Aguascalientes**	**6/17/16**	**6/17/17**
	Alamogordo	7/1/16	6/20/17
	Albuquerque NMMNH	4/30/16	4/30/17
	Baltimore MSC	7/1/16	6/30/17
	Chantilly	5/1/15	5/1/17
	Charlotte DP	9/19/15	9/19/16
	Cincinnati MC	10/9/15	10/9/16
	Columbus GA NIM	12/4/15	12/4/16
	Dayton	3/6/15	3/5/17
	Erie	**6/18/16**	**6/18/17**
	Garden City	7/1/16	7/1/17
	Hampton VASC	2/21/15	2/20/17
	Harrisburg	9/14/15	6/30/17
	Hong Kong SM	7/1/16	12/31/16
	Houston MNS	10/1/15	10/1/16
	Houston SCH	3/14/15	3/17/17
	Hutchinson	2/20/15	7/2/17
	Kolkata SC	**7/1/16**	**7/1/17**
	KSC 1	2/27/15	3/6/17
	Kuwait SCK	1/4/16	10/3/16
	Lehi	1/1/16	6/30/17
	Los Angeles CSC	10/29/15	9/1/16
	New Orleans	11/19/15	11/19/16
	Orlando SC	7/2/15	12/31/16
	Penrith	7/21/16	12/31/16
	Peoria RM	6/11/16	12/17/16
	Portland OMSI	3/20/15	3/20/17
	Salt Lake City Clark	5/15/15	5/31/17
	San Jose Tech	4/30/16	6/30/17
	Sioux Falls	**8/19/16**	**8/19/17**
	Taichung NMNS	7/1/16	6/30/17
	Taipei AM	7/1/16	7/1/17
	Tijuana	4/1/16	4/1/17
	Toulouse CDE	2/1/16	1/7/17
	Washington NASM	3/6/15	
JTTSP	Apple Valley Imx	5/30/15	9/30/16
	Edmonton TWS	1/16/15	
	Paris Geo	**5/16/14**	**12/31/16**
	Stockholm	**2/14/14**	**12/31/16**
Kenya	Hutchinson	5/30/15	12/31/16
	Kuwait SCK	9/22/15	9/21/16
	Mexico City Pap	11/13/15	11/1/16
L&C	**Spokane RP**	**4/1/16**	**9/5/16**
LastReef	Chongqing STM	9/8/15	9/10/16
	Dongguan STM	4/1/16	4/1/17
	Hutchinson	10/5/12	9/30/16
LITAOA	Columbus COSI	10/14/15	10/13/16
	Davenport Put	7/1/16	9/30/17
	Dayton	9/8/15	9/7/16
	Dearborn THF	9/4/15	12/31/16
	Denver MNS	1/29/16	12/31/16
	Gatineau	4/18/16	4/17/17
	Hutchinson	5/1/15	5/30/17
	London BFI	10/16/15	10/15/16
	London BFI Ode	10/16/15	10/15/16
	Memphis Pink	9/12/15	9/11/16
	Orlando SC	11/13/15	11/19/16
	Peoria RM	1/4/16	1/28/17
	Sacramento Imx	9/11/15	
	Saint Augustine	8/19/15	
	Saint Louis SC	1/22/16	12/31/16
	San Jose Tech	3/5/16	3/4/17
	Spokane RP	**4/1/16**	**9/5/16**
	Victoria DCI	6/10/16	6/9/17
LivingSe	**Hartberg**	**10/1/13**	**12/31/16**
LOF	McMinnville	3/23/12	6/15/17
MOF	Pensacola NAM	11/8/96	
	Speyer Dome	1/1/15	12/31/16
MOTN	Alexandria BA	10/1/13	12/31/16
	Cairo EMA	12/15/15	12/14/16
	Pittsburgh CSC		12/31/16
MOTUW	Athens Eug	4/13/16	4/10/17
	Calgary TS	7/1/14	
	Dearborn THF	3/25/16	3/25/17
	Detroit MSC	10/7/15	10/6/16
	Hague	10/1/15	12/17
	Hampton VASC	9/18/15	9/17/16
	Kuwait SCK	1/30/14	1/31/17
	Lubbock SS	9/18/15	9/17/16
	Mexicali	11/20/15	5/30/17
	Milwaukee	10/1/14	7/30/17
	Montreal SC	9/18/15	9/17/16
	Pittsburgh CSC	1/2/14	12/31/16
	Poitiers Imax 3D	2/1/16	1/31/17
	Raleigh	11/1/15	10/31/17
	San Jose Tech	8/30/14	6/20/17
	Singapore SC	6/13/16	12/31/17
	Spokane RP	**4/1/16**	**9/5/16**
	Stockholm	9/18/15	9/1/16
	Victoria DCI	10/9/15	10/8/16
	Virginia Beach AMSC	2/1/16	2/11/17
ND	New Delhi ICC		
Niagara	Niagara Can DCI	7/1/86	
	Niagara NY DCI	5/1/07	
NPA	Atlanta FMNH	2/12/16	
	Austin TSHM	2/12/16	2/11/17
	Birmingham AL	5/20/16	5/19/17
	Boston MOS	2/12/16	2/11/17
	Branson	**3/18/16**	**10/31/16**
	Chandigarh	**9/5/16**	**9/4/17**
	Charlotte DP	**5/20/16**	**2/11/17**
	Chattanooga TA	2/12/16	2/11/17
	Chicago MSI	2/12/16	2/11/17
	Columbus COSI	2/12/16	2/11/17
	Columbus GA NIM	**4/1/16**	**3/29/17**
	Copenhagen TBP	2/12/16	2/10/17
	Dallas PMNS	5/27/16	
	Davenport Put	2/12/16	2/11/17
	Dearborn THF	**3/25/16**	**12/31/16**
	Denver MNS	7/1/16	6/30/17
	Des Moines	2/12/16	2/11/17
	Detroit MSC	2/12/16	2/11/17
	Edmonton TWS	2/12/16	2/11/17
	Fort Lauderdale	2/12/16	2/10/17
	Fort Worth	2/12/16	2/11/17
	Galveston	3/5/16	3/4/17
	Garza Garcia	**6/23/16**	**10/24/16**
	Hague	2/16/16	2/15/17
	Hampton VASC	4/29/16	4/28/17
	Harrisburg	7/1/16	6/30/17
	Hastings	6/9/16	6/8/17
	Houston MNS	**2/12/16**	**5/31/17**
	Hutchinson	2/19/16	2/18/17
	Indianapolis Imx	2/12/16	2/11/17
	Jersey City	2/12/16	2/11/17
	Kansas City Sci	5/31/16	5/30/17
	Kaohsiung NSTM	7/1/16	6/30/17
	Kitakyushu	7/2/16	6/30/17
	Kolkata SC	**7/21/16**	**1/20/17**
	Leon Exp	6/1/16	12/1/16
	London BFI	2/12/16	
	Los Angeles CSC	2/12/16	2/11/17
	Louisville KSC	2/12/16	2/11/17
	Lubbock SS	5/20/16	5/19/17
	Lucerne	3/17/16	3/17/17
	Melbourne MV	2/25/16	2/24/17
	Memphis Pink	3/5/16	3/4/17
	Mexico City Pap	3/18/16	3/17/17
	Milwaukee	9/17/16	9/16/17
	Moscow BFC	9/17/16	11/6/16
	New York AMNH	**2/12/16**	**9/3/16**
	Norwalk MA	5/27/16	5/10/17
	Nuremberg	**3/3/16**	**2/11/17**
	Omaha Zoo	2/12/16	2/11/17
	Orlando SC	2/12/16	2/11/17
	Pensacola NAM	9/5/16	9/4/17
	Peoria RM	8/27/16	8/26/17
	Philadelphia FI	2/20/16	2/19/17
	Pittsburgh CSC	2/12/16	2/11/17
	Portland OMSI	2/12/16	
	Quebec Cpx	**6/24/16**	**6/23/17**
	Raleigh	2/27/16	2/26/17
	Regina	2/12/16	2/11/17
	Richmond SMV	4/10/16	4/9/17
	Sacramento Imx	2/19/16	2/18/17
	Saint Augustine	2/12/16	2/11/17
	Saint Louis SC	2/12/16	2/11/17
	Saint Paul SMM	**3/4/16**	**2/11/17**
	Salt Lake City Clark	2/12/16	2/11/17
	San Antonio San	7/25/16	7/25/17
	San Diego RHF	**3/18/16**	**2/11/17**
	San Jose Tech	2/12/16	2/11/17
	Sao Paulo Cpl	8/13/16	10/29/16
	Seattle PSC 2	2/12/16	2/11/17
	Shreveport	2/12/16	2/11/17
	Sinsheim	3/4/16	2/28/17
	Sudbury	2/12/16	2/11/17
	Sydney WBS	2/25/16	2/24/17
	Tallahassee CLC	2/19/16	2/18/17
	Tampa MOSI	2/12/16	2/11/17
	Tijuana	2/19/16	2/18/17
	Toronto OSC	7/1/16	6/30/17
	Vancouver TWS	2/12/16	2/11/17
	Victoria DCI	**2/12/16**	**3/3/17**
	Virginia Beach AMSC	2/12/16	2/11/17
	Washington NMNH	2/12/16	2/11/17
	Yellowstone	5/1/16	4/30/17
	Zion	2/12/16	2/11/17
Ozarks	Branson	9/93	12/16
Penguins	**Ahmedabad**	**7/1/16**	**6/30/17**
PTJH	Chicago Imx	2/13/15	12/12/16
	Harrisburg	1/24/15	1/9/17
	Hutchinson	12/18/15	12/17/16
	Tijuana	10/17/15	10/16/16
Rescue	McMinnville	6/1/12	12/31/17
Rheged	Penrith	7/1/00	
RME	Pittsburgh CSC	11/26/14	11/25/16
RobotsNG	Albuquerque NMMNH	9/5/15	9/4/16
	Birmingham AL	1/22/16	9/30/16
	Calgary TS	5/1/16	4/30/17
	Cleveland	11/1/15	10/1/16
	Columbus COSI	1/15/16	1/14/17
	Davenport Put	11/1/15	10/31/16
	Dearborn THF	3/25/16	3/25/17
	Denver MNS	3/18/16	2/28/17
	Erie	2/6/16	2/28/17
	Hampton VASC	6/20/15	6/19/17
	Houston MNS	10/2/15	10/1/16
	Hutchinson	5/20/16	5/20/17
	Pittsburgh CSC	9/4/15	9/3/16
	Saint Augustine	8/1/16	7/30/17
	Saitama Omi	6/1/16	12/31/16
	San Jose Tech	10/3/15	10/2/16
	Sioux Falls	3/4/16	
	Tallahassee CLC	10/16/15	10/15/16
	Valencia Spn	3/11/16	3/10/17
ROTB	Saint Augustine	10/3/15	12/31/16
	Sudbury	9/15/16	12/31/16
SeaRex	Keelung NMMST	1/1/16	12/31/16
Sharks3D	Puebla	4/1/16	4/1/17
SpaceNex	Columbus GA NIM	12/4/15	12/31/16
	Copenhagen TBP	12/17/15	9/15/16
SpacJunk	Portland OMSI	6/18/16	9/18/16
TA	Davenport Put	1/1/16	12/31/16
	Fort Worth	3/12/16	9/30/16
	Spokane RP	**4/1/16**	**9/5/16**
	Vulcania	3/13/16	11/30/16
TinyGian	Columbus COSI	3/1/15	9/30/16
	Davenport Put	9/25/15	9/25/16
	Erie	9/8/15	9/30/16
	Hastings	9/24/15	9/30/16
	Melbourne MV	9/17/15	9/30/16
	Raleigh	9/19/15	9/30/16
	Seattle PSC 1	9/12/15	9/12/16
ToFly	Rochester MSC	7/1/16	6/30/18
	Washington NASM	3/7/16	12/31/17
TOTIA	Kuwait SCK	11/18/14	9/30/16
	London SM	3/1/16	9/30/16
TTA	Apple Valley Imx	1/1/14	9/30/16
	Chicago Imx	9/30/13	12/31/16

Film	Theater	Open	Close
	Cleveland		12/31/16
UWT3D	Syracuse MOST	4/23/16	10/22/16
VanGogh	Peoria RM	3/22/16	2/1/17
Vikings	Gatineau	12/1/15	12/31/16
Vulcania	Vulcania	2/22/02	
WATE	Katoomba	6/1/97	
WildAfri	Al Khobar	4/15/16	4/30/17
	Albuquerque NMMNH	12/19/15	12/31/16
	Apple Valley Imx	2/1/16	6/30/17
	Birmingham AL	3/18/16	2/15/17
	Boston MOS	11/20/15	11/30/16
	Fort Lauderdale	10/1/15	9/30/16
	Montreal SC	12/1/15	12/31/16
	Montreal SC	12/18/15	12/31/16
	Orlando SC	3/12/16	3/31/17
	Portland OMSI	12/11/15	12/31/16
WildCats	Lucerne	11/5/15	11/4/16
	New Orleans	5/27/16	11/27/16
WM	Austin TSHM	3/1/16	12/31/16
	Dearborn THF	3/25/16	12/31/16
	Edmonton TWS	4/22/16	12/31/16
	Guayaquil	4/20/16	4/19/17
	Hastings	7/3/15	12/31/16
	Portland OMSI	10/1/15	5/31/17
	Sudbury	4/1/16	12/31/16
WOTA	Atlanta FMNH	10/2/15	10/31/16
	Hutchinson	8/28/14	9/30/16
	Lubbock SS	11/13/15	11/30/16
WTTR3D	Port of Spain	9/1/15	9/30/16
WWDPP3D	Bradford	9/16/15	9/30/16
	Gatineau	2/28/16	2/28/17
	Melbourne MV	10/1/15	9/30/16
	Milwaukee	2/1/16	6/30/17
	Parker	3/26/16	9/30/16
	Sioux Falls	9/25/15	9/30/16
Yell	Yellowstone	5/1/14	12/31/16
ZionCany	Zion	7/1/08	

September 2016 by Theater

Theater	Film	Open	Close
Aguascalientes	**JTS**	**6/17/16**	**6/17/17**
Ahmedabad	**Penguins**	**7/1/16**	**6/30/17**
Al Khobar	**G3DNW**	**8/20/15**	**2/20/17**
	JMCSO	9/5/16	9/5/17
	WildAfri	4/15/16	4/30/17
Alamogordo	JTS	7/1/16	6/20/17
Albuquerque NMMNH	JTS	4/30/16	4/30/17
	RobotsNG	9/5/15	9/4/16
	WildAfri	12/19/15	12/31/16
Alexandria BA	CV		12/31/16
	MOTN	10/1/13	12/31/16
Apple Valley Imx	FOTB	6/5/15	12/31/16
	G3DNW	10/3/14	4/28/17
	JTTSP	5/30/15	9/30/16
	TTA	1/1/14	9/30/16
	WildAfri	2/1/16	6/30/17
Athens Eug	MOTUW	4/13/16	4/10/17
Atlanta FMNH	BeauPlan	4/29/16	
	NPA	2/12/16	
	WOTA	10/2/15	10/31/16
Austin TSHM	BeauPlan	4/29/16	
	D-Day	5/1/14	12/31/16
	NPA	2/12/16	2/11/17
	WM	3/1/16	12/31/16
Baltimore MSC	**HumpbWha**	**7/1/15**	**10/31/16**
	JIAC	**9/15/15**	**9/14/17**
	JTS	7/1/16	6/30/17
Baton Rouge LASM	**FOTB**	**9/1/15**	**8/31/17**
Berlin CS	G3DNW	4/20/14	10/9/16
Birmingham AL	NPA	5/20/16	5/19/17
	RobotsNG	1/22/16	9/30/16
	WildAfri	3/18/16	2/15/17
Bogota Mal	G3DNW	6/24/16	6/23/17
Boston MOS	Dolphins	4/9/16	10/9/16
	NPA	2/12/16	2/11/17
	WildAfri	11/20/15	11/30/16
Boston NEA	G3DNW	2/15/16	12/31/16
	GWS	5/31/13	6/30/17
	HumpbWha	2/13/15	12/31/16
Bradford	WWDPP3D	9/16/15	9/30/16
Branson	**NPA**	**3/18/16**	**10/31/16**
	Ozarks	9/93	12/16
Budapest CC	G3DNW	4/24/14	5/21/17
Cairo EMA	MOTN	12/15/15	12/14/16
Calgary TS	**Bugs**	**9/28/15**	**9/28/17**
	FOTB	6/28/13	12/31/16
	MOTUW	7/1/14	
	RobotsNG	5/1/16	4/30/17
Chandigarh	**AIWC**	**9/5/14**	**12/31/16**
	NPA	**9/5/16**	**9/4/17**
Chantilly	**D-Day**		**10/30/16**
	FightPil	12/10/04	7/17
	JTS	5/1/15	5/1/17
Charlotte DP	BeauPlan	4/29/16	
	JTS	9/19/15	9/19/16
	NPA	**5/20/16**	**2/11/17**
Chattanooga TA	BeauPlan	4/29/16	
	NPA	2/12/16	2/11/17
Chicago Imx	BeauPlan	4/29/16	
	Jerusale	2/19/16	9/1/16
	PTJH	2/13/15	12/12/16
	TTA	9/30/13	12/31/16
Chicago MSI	FOTB	2/28/14	6/30/17
	NPA	2/12/16	2/11/17
Chongqing STM	LastReef	9/8/15	9/10/16
Cincinnati MC	JTS	10/9/15	10/9/16
Cleveland	BeauPlan	4/29/16	
	FOTB	11/27/13	6/30/17
	RobotsNG	11/1/15	10/1/16
	TTA		12/31/16
Columbus COSI	Bugs	9/15/14	6/30/17
	FOTB	9/1/14	6/30/17
	Jerusale	2/11/15	2/10/17
	LITAOA	10/14/15	10/13/16
	NPA	2/12/16	2/11/17
	RobotsNG	1/15/16	1/14/17
	TinyGian	3/1/15	9/30/16
Columbus GA NIM	D-Day	5/23/14	12/31/16
	JTS	12/4/15	12/4/16
	NPA	**4/1/16**	**3/29/17**
	SpaceNex	12/4/15	12/31/16
Copenhagen TBP	BeauPlan	4/29/16	
	HumpbWha	10/8/15	10/7/16
	NPA	2/12/16	2/10/17
	SpaceNex	12/17/15	9/15/16
Corpus Christi Lex	ACGOTS	6/17/16	6/17/17
	FightPil	5/12/12	7/17
Dallas PMNS	NPA	5/27/16	
Davenport Put	FOTB	2/15/13	6/30/17
	G3DNW	10/17/14	10/16/16
	HumpbWha	6/1/16	6/1/17
	LITAOA	7/1/16	9/30/17
	NPA	2/12/16	2/11/17
	RobotsNG	11/1/15	10/31/16
	TA	1/1/16	12/31/16
	TinyGian	9/25/15	9/25/16
Dayton	ACGOTS	6/17/16	5/31/17
	FightPil	3/1/13	6/30/17
	JTS	3/6/15	3/5/17
	LITAOA	9/8/15	9/7/16
Dearborn THF	DSC	3/25/16	3/25/17
	JMCSO	2/27/15	12/31/16
	LITAOA	9/4/15	12/31/16
	MOTUW	3/25/16	3/25/17
	NPA	**3/25/16**	**12/31/16**
	RobotsNG	3/25/16	3/25/17
	WM	3/25/16	12/31/16
Denver MNS	BeauPlan	4/29/16	
	LITAOA	1/29/16	12/31/16
	NPA	7/1/16	6/30/17
	RobotsNG	3/18/16	2/28/17
Des Moines	BeauPlan	4/29/16	
	NPA	2/12/16	2/11/17
Detroit MSC	DinoAliv	10/17/15	10/31/16
	MOTUW	10/7/15	10/6/16
	NPA	2/12/16	2/11/17
Dongguan STM	HOTB	3/1/16	2/28/17
	LastReef	4/1/16	4/1/17
Edmonton TWS	BeauPlan	4/29/16	
	Bugs	12/26/13	6/30/17
	FOTB	12/26/13	6/30/17
	JMCSO	5/20/16	11/20/16
	JTM	12/26/13	6/30/17
	JTTSP	1/16/15	
	NPA	2/12/16	2/11/17
	WM	4/22/16	12/31/16
Erie	D-Day	11/11/15	7/6/17
	JTS	**6/18/16**	**6/18/17**
	RobotsNG	2/6/16	2/28/17
	TinyGian	9/8/15	9/30/16
Fort Lauderdale	BeauPlan	4/29/16	
	NPA	2/12/16	2/10/17
	WildAfri	10/1/15	9/30/16
Fort Worth	Bugs	2/1/16	1/8/17
	D-Day	9/5/15	6/30/17
	Dolphins	5/28/16	12/31/17
	Jerusale	3/21/16	6/30/17
	NPA	2/12/16	2/11/17
	TA	3/12/16	9/30/16
Galveston	GWS	6/28/14	12/31/16
	Jerusale	11/12/15	12/31/16
	JMCSO	3/6/15	3/6/17
	NPA	3/5/16	3/4/17
Garden City	JTS	7/1/16	7/1/17
Garza Garcia	**NPA**	**6/23/16**	**10/24/16**
Gatineau	AMMM	10/15	10/16
	DSC	8/5/16	10/4/16
	FOTB	10/5/12	6/30/17
	JIAC	7/17/15	12/31/16
	JMCSO	9/4/15	9/30/16
	LITAOA	4/18/16	4/17/17
	Vikings	12/1/15	12/31/16
	WWDPP3D	2/28/16	2/28/17
Glasgow	**HidUniv**	**5/2/14**	**12/31/16**
Grand Canyon DCI	GC	11/1/99	12/16
Grand Rapids Cel	GCA	4/22/16	4/21/17
Guayaquil	Dragons	5/1/14	12/31/16
	G3DNW	4/20/14	5/4/17
	JMCSO	4/15/16	4/14/17
	WM	4/20/16	4/19/17
Hague	HumpbWha	6/28/16	6/17/17
	MOTUW	10/1/15	12/17
	NPA	2/16/16	2/15/17
Hampton VASC	FOTB	3/29/13	6/30/17
	JTS	2/21/15	2/20/17
	MOTUW	9/18/15	9/17/16
	NPA	4/29/16	4/28/17
	RobotsNG	6/20/15	6/19/17
Hangzhou LCSTM	JMCSO	1/1/16	12/31/16
Harrisburg	FOTB	2/2/14	6/30/17
	Jerusale	10/18/14	10/31/16
	JTS	9/14/15	6/30/17
	NPA	7/1/16	6/30/17
	PTJH	1/24/15	1/9/17
Hartberg	CRA	3/25/15	12/31/16
	DIA	**3/25/15**	**12/31/16**
	Everest	3/25/15	12/31/16
	LivingSe	**10/1/13**	**12/31/16**
Hartford CSC	G3DNW	11/27/15	6/30/17
Hastings	D-Day	5/15/15	5/31/17
	FOTB	3/17/13	6/30/17
	G3DNW	**2/10/15**	**6/10/17**
	Gruffalo	7/8/16	12/31/16
	JMCSO	2/11/16	2/11/17
	NPA	6/9/16	6/8/17
	TinyGian	9/24/15	9/30/16
	WM	7/3/15	12/31/16
Hong Kong SM	JTS	7/1/16	12/31/16
Houston MNS	DinoAliv	12/15/15	6/30/17
	FOTB	10/4/12	12/31/17
	G3DNW	**6/6/16**	**5/31/17**
	HumpbWha	3/13/15	3/15/17
	JTS	10/1/15	10/1/16
	NPA	**2/12/16**	**5/31/17**
	RobotsNG	10/2/15	10/1/16
Houston SCH	JTS	3/14/15	3/17/17
Huntsville USSRC	BeauPlan	4/29/16	
	FightPil	7/1/13	7/1/17

Theater	Film	Open	Close
Hutchinson	AirRacer	1/1/15	12/31/16
	D-Day	4/21/14	6/30/17
	JTS	2/20/15	7/2/17
	Kenya	5/30/15	12/31/16
	LastReef	10/5/12	9/30/16
	LITAOA	5/1/15	5/30/17
	NPA	2/19/16	2/18/17
	PTJH	12/18/15	12/17/16
	RobotsNG	5/20/16	5/20/17
	WOTA	8/28/14	9/30/16
Indianapolis Imx	BeauPlan	4/29/16	
	HumpbWha	7/1/16	12/31/16
	NPA	2/12/16	2/11/17
Jersey City	AsterME	4/15/16	4/14/17
	BeauPlan	4/29/16	
	NPA	2/12/16	2/11/17
Kansas City Sci	Jerusale	9/19/14	3/17/17
	NPA	5/31/16	5/30/17
Kaohsiung NSTM	NPA	7/1/16	6/30/17
Katoomba	WATE	6/1/97	
Katowice CC	G3DNW	6/18/14	9/19/16
Keelung NMMST	JMCSO	1/1/16	12/31/16
	SeaRex	1/1/16	12/31/16
Kitakyushu	NPA	7/2/16	6/30/17
Kolkata SC	**JTS**	**7/1/16**	**7/1/17**
	NPA	**7/21/16**	**1/20/17**
Krakow CC	G3DNW	6/18/14	9/19/16
KSC 1	BeauPlan	4/29/16	
	JTS	2/27/15	3/6/17
Kuwait SCK	HumpbWha	7/6/16	12/31/16
	JMCSO	7/17/15	7/17/17
	JTS	1/4/16	10/3/16
	Kenya	9/22/15	9/21/16
	MOTUW	1/30/14	1/31/17
	TOTIA	11/18/14	9/30/16
Lehi	AsterME	5/27/16	5/30/17
	JTS	1/1/16	6/30/17
Leon Exp	NPA	6/1/16	12/1/16
Lodz CC	**Bugs**	**8/24/15**	**8/24/17**
	G3DNW	6/18/14	9/19/16
London BFI	FOTB	9/6/13	1/31/17
	JTM		1/31/17
	LITAOA	10/16/15	10/15/16
	NPA	2/12/16	
London BFI Ode	LITAOA	10/16/15	10/15/16
London SM	BeauPlan	4/29/16	
	HidUniv	**10/18/13**	**12/31/16**
	TOTIA	3/1/16	9/30/16
Los Angeles CSC	BeauPlan	4/29/16	
	JTS	10/29/15	9/1/16
	NPA	2/12/16	2/11/17
Louisville KSC	FOTB	9/30/12	6/30/17
	G3DNW	**6/18/15**	**6/30/17**
	Jerusale	1/20/14	7/2/17
	NPA	2/12/16	2/11/17
Lubbock SS	MOTUW	9/18/15	9/17/16
	NPA	5/20/16	5/19/17
	WOTA	11/13/15	11/30/16
Lucerne	G3DNW	6/5/14	12/4/16
	JMCSO	3/17/16	3/16/17
	NPA	3/17/16	3/17/17
	WildCats	11/5/15	11/4/16
McMinnville	DSC	6/16/16	10/27/16
	FightPil	3/23/12	7/1/17
	LOF	3/23/12	6/15/17
	Rescue	6/1/12	12/31/17
Melbourne MV	AMMM	7/1/16	
	BeauPlan	4/29/16	
	FOTB	3/21/13	9/16/16
	G3DNW	4/11/16	4/10/17
	NPA	2/25/16	2/24/17
	TinyGian	9/17/15	9/30/16
	WWDPP3D	10/1/15	9/30/16
Memphis Pink	FOTB	3/1/14	5/27/17
	JMCSO	6/25/16	6/23/17
	LITAOA	9/12/15	9/11/16
	NPA	3/5/16	3/4/17
Mexicali	Jerusale	2/9/16	2/9/17
	MOTUW	11/20/15	5/30/17
Mexico City Pap	Kenya	11/13/15	11/1/16
	NPA	3/18/16	3/17/17
Milwaukee	MOTUW	10/1/14	7/30/17
	NPA	9/17/16	9/16/17
	WWDPP3D	2/1/16	6/30/17
Montreal SC	BeauPlan	4/29/16	
	HumpbWha	**9/23/16**	**6/16/17**
	MOTUW	9/18/15	9/17/16
	WildAfri	12/1/15	12/31/16
	WildAfri	12/18/15	12/31/16
Moscow BFC	G3DNW	10/6/14	10/31/16
	NPA	9/17/16	11/6/16
New Delhi ICC	ND		
New Orleans	JMCSO	2/12/16	2/2/17
	JTS	11/19/15	11/19/16
	WildCats	5/27/16	11/27/16
New York AMNH	**NPA**	**2/12/16**	**9/3/16**
Niagara Can DCI	Niagara	7/1/86	
Niagara NY DCI	Niagara	5/1/07	
Norwalk MA	BeauPlan	4/29/16	
	FOTB	5/22/15	10/7/16
	HumpbWha	**2/13/15**	**11/6/16**
	NPA	5/27/16	5/10/17
Nuremberg	FOTB	11/19/14	12/31/16
	G3DNW	10/15/14	11/20/16
	HumpbWha	4/30/15	9/30/16
	NPA	**3/3/16**	**2/11/17**
Omaha Zoo	NPA	2/12/16	2/11/17
Orlando SC	FOTB	3/1/14	6/30/17
	G3DNW	7/5/14	1/4/17
	JTS	7/2/15	12/31/16
	LITAOA	11/13/15	11/19/16
	NPA	2/12/16	2/11/17
	WildAfri	3/12/16	3/31/17
Paris Geo	GCA	7/1/14	12/31/16
	HumpbWha	**7/7/15**	**10/31/16**
	JTTSP	**5/16/14**	**12/31/16**
Parker	G3DNW	7/30/16	1/27/17
	WWDPP3D	3/26/16	9/30/16
Penrith	JTS	7/21/16	12/31/16
	Rheged	7/1/00	
Pensacola NAM	MOF	11/8/96	
	NPA	9/5/16	9/4/17
Peoria RM	**FOTB**	**4/1/16**	**8/26/17**
	Jerusale	11/14/15	11/13/16
	JTS	6/11/16	12/17/16
	LITAOA	1/4/16	1/28/17
	NPA	8/27/16	8/26/17
	VanGogh	3/22/16	2/1/17
Philadelphia FI	**CRA**	**6/1/16**	**10/31/16**
	G3DNW	**9/6/16**	**9/5/17**
	NPA	2/20/16	2/19/17
Phoenix ASC	Bugs	4/22/16	10/6/16
Pittsburgh CSC	Animalop	1/1/10	
	CRA	**10/1/15**	**12/31/16**
	D-Day	5/15/15	12/31/16
	FOTB	3/15/13	12/31/16
	HumpbWha	**6/17/16**	**12/31/16**
	Jerusale	3/7/14	12/31/16
	MOTN		12/31/16
	MOTUW	1/2/14	12/31/16
	NPA	2/12/16	2/11/17
	RME	11/26/14	11/25/16
	RobotsNG	9/4/15	9/3/16
Poitiers Imax 3D	MOTUW	2/1/16	1/31/17
Poitiers Solido	JMCSO	2/1/16	12/31/17
Port of Spain	DinoAliv	9/1/15	9/30/16
	WTTR3D	9/1/15	9/30/16
Portland OMSI	D-Day	3/16	3/17
	FOTB	1/7/15	6/30/17
	GWS	11/16/15	12/31/16
	Jerusale	11/18/13	5/30/17
	JMCSO	2/20/15	2/27/17
	JTS	3/20/15	3/20/17
	NPA	2/12/16	
	SpacJunk	6/18/16	9/18/16
	WildAfri	12/11/15	12/31/16
	WM	10/1/15	5/31/17
Poznan CC	G3DNW	6/18/14	9/19/16
Prague CC	G3DNW	5/22/14	5/21/17
Puebla	Sharks3D	4/1/16	4/1/17
Quebec Cpx	**NPA**	**6/24/16**	**6/23/17**
Raleigh	BeauPlan	4/29/16	
	D-Day	5/23/14	2/1/17
	DSC	1/16/15	1/15/17
	HumpbWha	3/20/15	3/1/17
	Jerusale	2/21/14	2/28/17
	MOTUW	11/1/15	10/31/17
	NPA	2/27/16	2/26/17
	TinyGian	9/19/15	9/30/16
Regina	BeauPlan	4/29/16	
	HumpbWha	11/20/15	11/19/16
	NPA	2/12/16	2/11/17
Richmond SMV	FOTB	5/1/13	6/30/17
	GCA	6/1/16	12/31/16
	HumpbWha	**3/14/15**	**12/31/16**
	NPA	4/10/16	4/9/17
Rochester MSC	ToFly	7/1/16	6/30/18
Sacramento Imx	AIWC	5/1/15	12/31/16
	FOTB	8/13/13	6/30/17
	HumpbWha	8/19/16	1/31/17
	LITAOA	9/11/15	
	NPA	2/19/16	2/18/17
Saint Augustine	BeauPlan	4/29/16	
	FOTB	1/18/13	12/31/16
	G3DNW	4/1/15	4/30/17
	Gruffalo	1/1/15	12/31/16
	GruffChi	2/1/15	12/31/16
	GWS	8/9/13	9/8/16
	JMCSO	1/1/16	1/1/17
	LITAOA	8/19/15	
	NPA	2/12/16	2/11/17
	RobotsNG	8/1/16	7/30/17
	ROTB	10/3/15	12/31/16
Saint Louis SC	BeauPlan	4/29/16	
	D-Day	5/16/16	11/15/16
	FMTTM	7/1/16	12/31/16
	LITAOA	1/22/16	12/31/16
	NPA	2/12/16	2/11/17
Saint Paul SMM	BeauPlan	4/29/16	
	FOTB	**7/1/16**	**6/30/17**
	Jerusale	1/8/16	9/5/16
	NPA	**3/4/16**	**2/11/17**
Saitama Omi	RobotsNG	6/1/16	12/31/16
Salt Lake City Clark	**BeauPlan**	**4/29/16**	**4/30/17**
	FOTB	2/8/13	8/6/17
	Jerusale	**11/22/13**	**12/31/16**
	JTS	5/15/15	5/31/17
	NPA	2/12/16	2/11/17
San Antonio 3D AMC	FOTB	5/15/15	1/31/17
San Antonio San	NPA	7/25/16	7/25/17
San Diego RHF	Bugs	7/1/14	6/30/17
	FOTB	**10/12/12**	**9/30/17**
	JMCSO	7/3/15	3/17/17
	NPA	**3/18/16**	**2/11/17**
San Jose Tech	BeauPlan	4/29/16	
	FOTB	2/9/13	6/30/17
	Jerusale	3/27/15	6/20/17
	JTS	4/30/16	6/30/17
	LITAOA	3/5/16	3/4/17
	MOTUW	8/30/14	6/20/17
	NPA	2/12/16	2/11/17
	RobotsNG	10/3/15	10/2/16
San Simeon DCI	HCBTD	8/17/96	
Sao Paulo Cpl	NPA	8/13/16	10/29/16
Seattle PSC 1	GWS	9/19/14	9/19/16
	JMCSO	9/30/16	3/30/17
	TinyGian	9/12/15	9/12/16
Seattle PSC 2	BeauPlan	4/29/16	
	D-Day	3/29/14	6/30/19
	G3DNW	11/20/15	4/30/17
	NPA	2/12/16	2/11/17
Shanghai 3D STM	FOTB	1/1/16	12/31/16
	GCA		12/31/16
Shreveport	BeauPlan	4/29/16	
	NPA	2/12/16	2/11/17
Singapore DC	ACGOTS	8/1/16	12/1/16
Singapore SC	MOTUW	6/13/16	12/31/17
Sinsheim	GCA	10/31/09	12/31/16
	HumpbWha	**5/21/15**	**1/31/17**
	NPA	3/4/16	2/28/17
Sioux Falls	**JTS**	**8/19/16**	**8/19/17**
	RobotsNG	3/4/16	
	WWDPP3D	9/25/15	9/30/16
Speyer Dome	Dolphins		12/31/16
	Jerusale	12/12/13	12/11/16
	MOF	1/1/15	12/31/16
Spokane RP	D-Day	4/1/16	9/5/16
	GCA	**5/1/15**	**9/5/16**
	L&C	**4/1/16**	**9/5/16**
	LITAOA	**4/1/16**	**9/5/16**
	MOTUW	**4/1/16**	**9/5/16**
	TA	**4/1/16**	**9/5/16**
Stockholm	**JTTSP**	**2/14/14**	**12/31/16**
	MOTUW	9/18/15	9/1/16
Sudbury	BeauPlan	4/29/16	
	D-Day	5/30/16	6/1/17
	GruffChi	2/1/16	12/31/16
	GWS	3/3/16	3/31/17
	NPA	2/12/16	2/11/17
	ROTB	9/15/16	12/31/16
	WM	4/1/16	12/31/16
Sydney WBS	NPA	2/25/16	2/24/17
Syracuse MOST	Amazon	4/1/16	5/31/17
	Dolphins	4/1/16	5/31/17
	Dragons	7/2/16	7/1/17
	FOTB	7/4/15	7/3/17
	UWT3D	4/23/16	10/22/16
Taichung NMNS	JMCSO	7/1/16	12/31/16
	JTS	7/1/16	6/30/17
Taipei AM	JTS	7/1/16	7/1/17

Theater	Film	Open	Close
Tallahassee CLC	BeauPlan	4/29/16	
	FOTB	1/18/13	6/30/17
	HidUniv	**2/14/14**	**12/31/16**
	HumpbWha	2/20/15	12/31/16
	NPA	2/19/16	2/18/17
	RobotsNG	10/16/15	10/15/16
Tampa MOSI	BeauPlan	4/29/16	
	DinoAliv	1/30/16	6/30/17
	GWS	1/1/16	12/31/16
	NPA	2/12/16	2/11/17
Tijuana	HumpbWha	7/15/16	7/14/17
	JTS	4/1/16	4/1/17
	NPA	2/19/16	2/18/17
	PTJH	10/17/15	10/16/16
Toronto OSC	BeauPlan	4/29/16	
	NPA	7/1/16	6/30/17
Toulouse CDE	JTS	2/1/16	1/7/17

Theater	Film	Open	Close
Valencia Spn	FOTB	7/1/15	6/30/17
	HidUniv	**4/1/14**	**12/31/16**
	RobotsNG	3/11/16	3/10/17
Vancouver TWS	Bugs	3/11/06	6/30/17
	D-Day	11/7/15	11/12/17
	FOTB	6/16/13	6/30/17
	HumpbWha	**10/9/15**	**12/30/16**
	NPA	2/12/16	2/11/17
Victoria DCI	BeauPlan	4/29/16	
	D-Day	3/21/14	12/31/16
	FOTB	4/5/13	6/30/17
	LITAOA	6/10/16	6/9/17
	MOTUW	10/9/15	10/8/16
	NPA	**2/12/16**	**3/3/17**
Virginia Beach AMSC	G3DNW	5/28/16	5/27/17
	HumpbWha	**9/8/15**	**10/31/16**
	MOTUW	2/1/16	2/11/17

Theater	Film	Open	Close
	NPA	2/12/16	2/11/17
Vulcania	TA	3/13/16	11/30/16
	Vulcania	2/22/02	
Warsaw CC	G3DNW	6/18/14	9/19/16
Washington NASM	BeauPlan	4/29/16	
	D-Day	5/23/14	10/30/16
	JTS	3/6/15	
	ToFly	3/7/16	12/31/17
Washington NMNH	FOTB	10/5/12	1/13/17
	JMCSO	3/20/15	3/20/17
	NPA	2/12/16	2/11/17
Yellowstone	NPA	5/1/16	4/30/17
	Yell	5/1/14	12/31/16
Zion	NPA	2/12/16	2/11/17
	ZionCany	7/1/08	

Key to Film Abbreviations

Film	Title	Year		Dist
ACGOTS	Aircraft Carrier: Guardian of the Seas	2016	3D	K2
AirRacer	Air Racers 3D: Forces of Flight	2012	3D	3DED
AIWC	Adventures in Wild California	2000		MFF
Amazon	Amazon	1997		MFF
AMMM	Amazing Mighty Micro Monsters 3D	2016	3D	SER
Animalop	Animalopolis	2008	3D	K2
AsterME	Asteroid: Mission Extreme	2016	3D	NGD
BeauPlan	Beautiful Planet, A	2016	3D	IMAX
Bugs	Bugs!	2003	3D	SKF
CRA	Coral Reef Adventure	2003		MFF
CV	Cosmic Voyage	1996		IMAX
D-Day	D-Day: Normandy 1944	2014	3D	3DED
DIA	Dream is Alive, The	1985		IMAX
DinoAliv	Dinosaurs Alive	2007	3D	GSF
Dolphins	Dolphins	2000		MFF
Dragons	Dragons: Real Myths and Unreal Creatures	2013	3D	B&D
DSC	Deepsea Challenge 3D	2015	3D	NGD
Everest	Everest	1998		MFF
FightPil	Fighter Pilot: Operation Red Flag	2004	3D	K2
FMTTM	Fly Me to the Moon	2008	3D	nWP
FOTB	Flight of the Butterflies	2012	3D	SKF
G3DNW	Galapagos 3D: Nature's Wonderland	2014	3D	nWP
GC	Grand Canyon: The Hidden Secrets	1985		GSF
GCA	Grand Canyon Adventure: River at Risk 3D	2008	3D	MFF
Gruffalo	Gruffalo, The	2014	3D	B&D
GruffChi	Gruffalo's Child	2015	3D	B&D
GWS	Great White Shark	2013	3D	GSF
HCBTD	Hearst Castle: Building the Dream	1996		GSF
HidUniv	Hidden Universe	2013	3D	MFF
HOTB	Hurricane on the Bayou	2006		MFF
HumpbWha	Humpback Whales	2015	3D	MFF
Jerusale	Jerusalem	2013	3D	NGD
JIAC	Journey into Amazing Caves	2001		MFF
JMCSO	Jean-Michel Cousteau's Secret Ocean	2015	3D	3DED
JTM	Journey to Mecca	2009		SKF
JTS	Journey to Space	2015	3D	K2
JTTSP	Journey to the South Pacific	2013	3D	MFF
Kenya	Kenya 3D: Animal Kingdom	2013	3D	3DED
L&C	Lewis & Clark: Great Journey West	2002		NGD
LastReef	Last Reef, The	2012	3D	GSF
LITAOA	Living in the Age of Airplanes	2015		NGD
LivingSe	Living Sea, The	1994		MFF
LOF	Legends of Flight	2010	3D	K2
MOF	Magic of Flight, The	1997		MFF
MOTN	Mystery of the Nile	2005		MFF
MOTUW	Mysteries of the Unseen World	2013	3D	NGD
ND	Neelkanth Darshan	2005		unk
Niagara	Niagara: Miracles, Myths, and Magic	1987		GSF
NPA	National Parks Adventure	2016	3D	MFF
Ozarks	Ozarks: Legacy and Legend	1993		IMAX
Penguins	Penguins 3D	2013	3D	nWP
PTJH	Pandas: The Journey Home	2014	3D	NGD

Film	Title	Year		Dist
Rescue	Rescue 3D	2011	3D	K2
Rheged	Rheged: The Lost Kingdom	2000		unk
RME	Rocky Mountain Express	2011		SLC
RobotsNG	Robots	2015	3D	NGD
ROTB	Room on the Broom	2015	3D	B&D
SeaRex	Sea Rex: Journey to a Prehistoric World	2010	3D	3DED
Sharks3D	Sharks 3D	2004	3D	3DED
SpaceNex	Space Next 3D	2015	3D	B&D
SpacJunk	Space Junk	2012	3D	K2
TA	Tornado Alley	2011	3D	GSF
TinyGian	Tiny Giants 3D	2014	3D	GSF
ToFly	To Fly!	1976		MFF
TOTIA	Titans of the Ice Age	2013	3D	GSF
TTA	To the Arctic	2012	3D	IMAX
UWT3D	Ultimate Wave Tahiti 3D, The	2010	3D	K2
VanGogh	Van Gogh: Brush with Genius	2009		MFF
Vikings	Vikings	2004		GSF
Vulcania	Vulcania	2002		unk
WATE	Wild Australia: The Edge	1997		MSI
WildAfri	Wild Africa 3D	2015	3D	GSF
WildCats	Wild Cats 3D	2015	3D	nWP
WM	Watermelon Magic	2013	3D	B&D
WOTA	Wonders of the Arctic	2014	3D	GSF
WTTR3D	Waking the T-Rex: The Story of Sue 3D	2010	3D	GSF
WWDPP3D	Walking With Dinosaurs: Prehistoric Planet 3D	2014	3D	GSF
Yell	Yellowstone	1994		GSF
ZionCany	Zion Canyon	1994		K2

September 2016 Bookings Count

#	Film	#	Film	#	Film	#	Film
84	NPA	4	DinoAliv	2	JIAC	1	LivingSe
38	FOTB	4	Dolphins	2	JTM	1	LOF
35	BeauPlan	4	DSC	2	MOF	1	ND
35	JTS	4	HidUniv	2	Niagara	1	Ozarks
28	G3DNW	4	JTTSP	2	ROTB	1	Penguins
22	HumpbWha	4	PTJH	2	SpaceNex	1	Rescue
20	JMCSO	4	TA	2	ToFly	1	Rheged
20	MOTUW	3	ACGOTS	2	TOTIA	1	RME
19	RobotsNG	3	CRA	2	WildCats	1	SeaRex
18	LITAOA	3	Kenya	1	AirRacer	1	Sharks3D
17	D-Day	3	LastReef	1	Amazon	1	SpacJunk
16	Jerusale	3	MOTN	1	Animalop	1	UWT3D
10	WildAfri	3	TTA	1	CV	1	VanGogh
8	Bugs	3	WOTA	1	DIA	1	Vikings
7	GWS	2	AIWC	1	Everest	1	Vulcania
7	TinyGian	2	AMMM	1	FMTTM	1	WATE
7	WM	2	AsterME	1	GC	1	WTTR3D
6	GCA	2	Dragons	1	HCBTD	1	Yell
6	WWDPP3D	2	Gruffalo	1	HOTB	1	ZionCany
5	FightPil	2	GruffChi	1	L&C		

Directory of Organizations Mentioned in this Issue of LF Examiner

Distributors' abbreviations are listed in **bold.**

3D Entertainment Distribution Ltd. **3DED**
Ibex House 61-65 Baker Street
Weybridge, Surrey KT13 8AH UNITED KINGDOM
Tel: +44 20-7681-2357
Fax: +44 20-7681-2357
www.3DEfilms.com

Academy of Motion Picture Arts and Sciences
Margaret Herrick Library
8949 Wilshire Boulevard
Beverly Hills, CA 90211-1972 USA
Tel: 310-247-3000
www.oscars.org

AMC Loews Lincoln Square 13 & IMAX
1998 Broadway
New York, NY 10023 USA
Tel: 212-336-5000
Fax: 212-833-6283
www.amctheatres.com/

AMC Theatres
11500 Ash St.
Leawood, KS 66211-7804 USA
Tel: 816-221-4000
Fax: 816-480-4617
www.amctheatres.com/

Atlantic Productions
Brook Green House
4 Rowan Road, Hammersmith
London, W6 7DU UNITED KINGDOM
Tel: +44 20 8735 9300
Fax: +44 20 8735 9333
www.atlanticproductions.co.uk

Barco NV
Noordlaan 5 - Industriezone
Kuurne, B-8520 BELGIUM
Tel: +32 56 36 8211
Fax: +32 56 36 8486
www.edutainment.barco.com

BBC Earth
Television Centre, 101 Wood Lane
London, W127FA UNITED KINGDOM
http://bbcearth.com/

BIG & Digital **B&D**
2900 Sunridge Heights Pkwy., #1218
Henderson, NV 89052 USA
Tel: 502-212-1559
http://biganddigital.com/

Broad Green Pictures **BGP**
6555 W. Barton Avenue, Second Floor
Los Angeles, CA 90038 USA
www.broadgreen.com/

Bullock Texas State History Museum
1800 N Congress Avenue
Austin, TX 78701 USA
Tel: 512-936-4600
Fax: 512-475-3366
www.thestoryoftexas.com/

California Science Center
700 Exposition Park Drive
Los Angeles, CA 90037-1210 USA
Tel: 213-744-7400
Fax: 213-744-2034
www.californiasciencecenter.org

Christie Digital Systems USA, Inc.
10550 Camden Drive
Cypress, CA 90630 USA
Tel: 714-236-8610
Fax: 714-229-7128
www.christiedigital.com

Cinema Group, Inc. **CGI**
464 S. Ranch Drive
Alpine, UT 84004 USA
Tel: 801-772-0860

Colossus Productions
Brook Green House
4 Rowan Road, Hammersmith
London, W6 7DU UNITED KINGDOM
Tel: +44 20 8735 9300
www.colossusproductions.co.uk/

Columbia Pictures **COL**
10202 W. Washington Blvd.
Culver City, CA 90232 USA
www.sonypictures.com/

Cradle of Aviation Museum
One Davis Avenue
Garden City, NY 11530 USA
Tel: 516-572-4111
www.cradleofaviation.org

D3D Cinema
990 Grove St., Suite 200
Evanston, IL 60201 USA
Tel: 847-475-9140
Fax: 847-475-9145
www.d3dcinema.com/

DC Entertainment
1700 Broadway, 7th Fl
New York, NY 10019 USA
Tel: 212 636 5400
www.dccomics.com

December Media
Level 1, 462 City Rd
South Melbourne, Victoria 3205 AUSTRALIA
Tel: +61-3-9699 8911
Fax: +61-3-9699-8611
www.decembermedia.com.au

Digicel IMAX
One Woodbrook Place
Port of Spain, TRINIDAD
www.facebook.com/pages/IMAX-Trinidad/193370343432174

Eastman Kodak Company
7095 Hollywood Boulevard PMB1380
Hollywood, CA 90028-6035 USA

Ecocine Verdon **EV**
Avenue Pierre Brossolette
Gréoux-les-Bains, 04800 FRANCE
Tel: +44 04 92 79 82 18
http://ecocine.fr/

Entergy Giant Screen Theatre
1 Canal Street
New Orleans, LA 70130 USA
Tel: 504-565-3033
Fax: 504-565-3010
www.audubooninstitute.org

Evans & Sutherland
770 Komas Drive
Salt Lake City, UT 84108-1229 USA
Tel: 801-588-1000
Fax: 801-588-4500
www.es.com

Fish Eye Project
2651 Millwoods Court
Victoria, BC V9B 6A4 CANADA
www.FishEyeProject.org

FotoKem Industries, Inc.
2801 W. Alameda Ave.
Burbank, CA 91505-4582 USA
Tel: 818-846-3101
Fax: 818-841-2130
www.fotokem.com

Foxfire Interactive Corporation
500 East Washington St, Suite 30
North Attleboro, MA 02760 USA
Tel: 508-699-6650
Fax: 508-699-6651
www.foxfireinteractive.com

Giant Screen Cinema Association
624 Holly Springs Road Suite 243
Holly Springs, NC 27540 USA
Tel: 919-346-1123
www.giantscreencinema.com

Giant Screen Films **GSF**
990 Grove St., Suite 200
Evanston, IL 60201 USA
Tel: 847-475-9140
Fax: 847-475-9145
www.gsfilms.com

Golden Gate 3D
300 California Avenue
Building Two, Treasure Island
San Francisco, CA 94130 USA
Tel: 415-779-4433
http://gg3d.com/

Goodrich Quality Theaters
4417 Broadmoor Ave. SE
Grand Rapids, MI 49512 USA
Tel: 800-473-3523
www.gqti.com

Graphic Films Corporation
3341 Cahuenga Boulevard West
Hollywood, CA 90068 USA
Tel: 323-851-4100
Fax: 323-851-4103
www.graphicfilms.com

Great Lakes Science Center
601 Erieside Ave.
Cleveland, OH 44114 USA
Tel: 216-696-2844
Fax: 216-736-7905
www.glsc.org

Happy Planet Productions
7058 Bianca Ave.
Lake Balboa, CA USA
Tel: 818-207-3037
http://happyplanetproductions.org

Houston Museum of Natural Science
5555 Hermann Park Drive
Houston, TX 77030-1799 USA
Tel: 713-639-4600
Fax: 713-523-4125
www.hmns.org

Imax Corporation **IMAX**
2525 Speakman Drive
Mississauga, ON L5K 1B1 CANADA
Tel: 905-403-6500
Fax: 905-403-6450
www.imax.com

IMAX Theatre Darling Harbour
31 Wheat Road
Darling Harbour
Sydney, NSW 2000 AUSTRALIA
Tel: +61-2-9219 0300
Fax: +61-2-9211 5166
www.imax.com.au

IMAX Theatre Melbourne
Rathdowne Street-Carlton Gardens
GPO Box 666E
Melbourne, Victoria 3053 AUSTRALIA
Tel: +61-3-9656-8633
Fax: +61-3-9663-5554
www.imaxmelbourne.com.au/

IMAX Victoria In the Royal BC Museum
675 Belleville Street
Victoria, BC V8W 1A1 CANADA
Tel: 250-953-4629
Fax: 250-480-4830
www.imaxvictoria.com

Jackson Hole Wildlife Film Festival
240 S. Glenwood, Suite 112
PO Box 3940
Jackson Hole, WY 83001 USA
Tel: 307-733-7016
Fax: 307-733-7376
www.jhfestival.org

Jennifer Casey Productions
347 N Catalina St
Burbank, CA 91505-3616 USA
Tel: 818-842-5451
https://www.facebook.com/pages/Jennifer-Casey-Productions/904651242928357

K2 Communications **K2**
880 Apollo Street, Suite 239
El Segundo, CA 90245 USA
Tel: 310-524-9100
Fax: 310-524-1540
www.k2communications.com/

Lionsgate **LG**
2700 Colorado Ave., Suite 200
Santa Monica, CA 90404 USA
Tel: 310-255-3700
Fax: 310-255-3870
www.lionsgate.com

Lootch
Krasnoyarsk, RUSSIA

LucasFilm Ltd.
PO Box 2009
San Rafael, CA 94912 USA
Tel: 415-662-1800
Fax: 415-662-2437
www.lucasfilm.com

MacGillivray Freeman Films, Inc. **MFF**
PO Box 205
Laguna Beach, CA 92652 USA
Tel: 949-494-1055
Fax: 949-494-2079
www.macfreefilms.com

Major Cineplex Group, Plc.
991 Paragon Cineplex, 5th Floor
Rama 1 Rd., Pathumwan
Bangkok, 10330 THAILAND
Tel: +66-2-511-5598
Fax: +66-2-511-5599
www.imaxthai.com/

Maritime Aquarium at Norwalk
10 North Water Street
Norwalk, CT 06854 USA
Tel: 203-852-0700
Fax: 203-838-5416
www.maritimeaquarium.org

Marvel Studios
1600 Rosecrans Ave
Manhattan Beach, CA 90266-3708 USA
Tel: 310-550-3100
www.marvel.com/

Memphis Museums, Inc.
3050 Central Ave.
Memphis, TN 38111 USA
Tel: 901-320-6357
Fax: 901-320-6391
www.memphismuseums.org

Metro-Goldwyn-Mayer **MGM**
245 N Beverly Dr
Beverly Hills, CA 90210 USA
Tel: 310 449 3000
www.mgm.com/

Museum of Discovery and Science
401 SW Second St.
Fort Lauderdale, FL 33312 USA
Tel: 954-467-6637
Fax: 954-467-0046
www.mods.org

Museum of Science and Industry
5700 S. Lake Shore Drive
Chicago, IL 60637 USA
Tel: 773-684-1414
Fax: 773-684-5678
www.msichicago.org

N3D Land Films
10 place du theatre
Sevres, 92310 FRANCE
Tel: + 33-6 88 88 87 78
www.n3dland.com/

National Film Board of Canada
3155 Cote de Liesse Road
Saint Laurent, QC H4N 2N4 CANADA
Tel: 514-283-9441
Fax: 514-496-1895
www.nfb.ca

Directory, cont'd

National Geographic Cinema Ventures **NGD**
485 Lexington Avenue, 3rd Floor
New York, NY 10017 USA
Tel: 212-656-0724
Fax: 212-656-0701
http://movies.nationalgeographic.com/movies/

National Geographic Studios
1145 17th Street, NW
Washington, DC 20036 USA
Tel: 202-857-7665
Fax: 202-775-6517
http://movies.nationalgeographic.com/movies/

Navy Pier IMAX Theatre
600 E. Grand Ave.
Chicago, IL 60611 USA
Tel: 312-595-0090
www.imax.com/chicago/

No Final Frontier Productions, LLC
Fairfax, VA USA
www.lightspeedpioneers.com/

Oceanic Research Group
PO Box 94
North Reading, MA 01864 USA
Tel: 978-664-9091
www.oceanicresearch.org

Omniversum
P.O. Box 30.313
Hague, 2500 GH NETHERLANDS
Tel: +31 70 307 3456
Fax: +31 70 307 3450
www.omniversum.nl

Ontario Science Centre
770 Don Mills Rd.
Toronto, ON M3C 1T3 CANADA
Tel: 416-429-4100
Fax: 416-696-3135
www.ontariosciencecentre.ca/

Ouragan Films
La Marie Louise, Route de Cazan
Pelissanne, 13330 FRANCE
Tel: +44-4 95 06 80 68
www.ouragan-lefilm.com

Paramount Pictures Corporation **PPC**
5555 Melrose Avenue
Hollywood, CA 90038-3197 USA
Tel: 323-956-5000
www.paramount.com

Primesco Communications, Inc. **PCI**
4342 Sherbrooke West
Montreal, QC H3Z 1E3 CANADA
Tel: 514-874-9551
Fax: 514-874-9068
www.primesco.com/medias/unf.htm

Riverfront Park
507 N. Howard Street
Spokane, WA 99201 USA
Tel: 509-625-6600
Fax: 509-625-6630
http://spokaneriverfrontpark.com

Rup'art Productions
Les Eyzies-de-Tayac-Sireuil , 24620 FRANCE
www.thefinalpassage.netwww.thefinalpassage.net

Saint Thomas Productions
Village d'Entreprises Saint Henri
Rue Anne Gacon - Bat 301-302
Marseille, 13016 FRANCE
Tel: +33 4 95 068 068
www.saint-thomas.net/

Sassoon Film Design
350 Sunset Ave., #1
Venice, CA 90291 USA
Tel: 310-664-9115
Fax: 310-664-9118
www.sassoonfilmdesign.com/

Science North **SN**
100 Ramsey Lake Rd.
Sudbury, ON P3E 5S9 CANADA
Tel: 705-522-3701
Fax: 705-522-4954
www.sciencenorth.ca

Science Spectrum
2579 South Loop 289, Suite 250
Lubbock, TX 79423-1400 USA
Tel: 806-745-2525
Fax: 806-745-1115
www.sciencespectrum.org

Scotiabank Toronto & IMAX
259 Richmond St West
Toronto, ON M5V3M6 CANADA
Tel: 416-368-5600
www.cineplex.com/

Sinking Ship Entertainment
1179 King Street West, Suite 302
Toronto, ON M6K 3C5 CANADA
www.sinkingship.ca

SK Films, Inc. **SKF**
Pinewood Toronto Studios
225 Commissioners Street, Suite 303
Toronto, ON M4M 0A1 CANADA
Tel: 416-367-0440
Fax: 647-837-3350
www.skfilms.ca

Society of Motion Picture and Television Engineers
3 Barker Ave., 5th Floor
White Plains, NY 10601 USA
Tel: 914-761-1100
Fax: 914-761-3115
www.smpte.org

Sony Pictures Entertainment **SPE**
10202 West Washington Blvd
Culver City, CA 90232-3195 USA
Tel: 310-244-4000

Sophisticated Films Gmbh
Strassburger Strasse 18
Berlin, 10405 GERMANY
Tel: +49 30 2529 3294

Starbreeze Studios
Regeringsgatan 38
Stockholm, 111 56 SWEDEN
Tel: +46 8-209 208
www.starbreeze.com

Stephen Low Company
795 Carson Ave, Suite 6
Dorval, QC H9S 1L7 CANADA
Tel: 514-633-6036
Fax: 514-633-6035
www.stephenlow.com

Stephen Low Distribution, Inc.
795 Carson Ave, Suite 6
Dorval, QC H9S 1L7 CANADA
Tel: 514-633-6036
Fax: 514-633-6035
www.stephenlow.com

SV2 Studios
4836-D Tower Road
Greensboro, NC 27410 USA
Tel: 336-202-4777
www.sv2studios.com/

T IMAX, AFI Palace Cotroceni
AFI Palace Cotroceni, Bd Vasile
Bucharest, 14108 ROMANIA

Tennessee Aquarium
201 Chestnut Street
Chattanooga, TN 37401 USA
Tel: 423-266-4629
Fax: 423-267-3561
www.tennis.org

Themed Entertainment Association
175 East Olive Avenue, Suite 304
Burbank, CA 91510-1148 USA
Tel: 818-843-8497
Fax: 818-843-8477
www.teaconnect.org

Toronto International Film Festival
Reitman Square
350 King Street West
Toronto, ON M5V 3X5 CANADA
Tel: 416-599-TIFF
http://tiff.net

Twentieth Century Fox **FOX**
10201 W. Pico Blvd.
Los Angeles, CA 90035 USA
Tel: 310-369-3423
www.foxmovies.com

Universal Pictures **UP**
100 Universal City Plaza
Universal City, CA 91608 USA
Tel: 818-777-1000
Fax: 818-622-0407
www.universalstudios.com

Walt Disney Studios Motion Pictures **WDPD**
350 S. Buena Vista Street
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SHORTS

GSCA calls for board noms

The **Giant Screen Cinema Association** is seeking candidates to fill ten positions on its board of directors, in an election to be held Oct. 4–28. Nominees from five industry categories may apply: production; distribution; commercial theaters; institutional theaters; and manufacturers, suppliers, and other related businesses. Nominees must be members of the GSCA, be willing to participate in meetings and conference calls, and meet other criteria. Winning candidates will serve a two-year term starting Jan. 1, 2017. Nominations must be received by Sept. 30.

For more information and to apply, visit giantscreencinema.com.

GSCA workflow wiki online

The **Production and Post-Production Workflow** (P3W) wiki, an online resource that explains the generally accepted practices and workflows used in giant-screen filmmaking, is starting to attract readers from outside the industry. The site is available at www.tinyurl.com/GSCAp3w.

The P3W guidelines were designed by the **Giant Screen Cinema Association** as a roadmap to assist first-time and seasoned filmmakers in navigating the complex worlds of production and post-production for the giant screen and to promote industry best practices.

According to GSCA executive director **Tammy Seldon**, "There's much about filmmaking for the giant screen that is different from other formats and that filmmakers need to consider from the very beginning so they make good decisions throughout the entire filmmaking process. The P3W Wikis and document are excellent tools to help them through that process."

For more information, to help with the wiki, or to help promote it outside the GS community, contact Seldon at tammy@giantscreencinema.com, P3W Task Force chair **Christian Fry** at christian@pretendentertainment.com or Technical Committee Co-chair **Martin Howe** at martinh@teq4.com, or speak to any of them at the GSCA conference in Toronto.

GSCA 2017 in Chicago

The **Giant Screen Cinema Association** will hold its 2017 annual conference and trade show in Chicago, Sept. 26–28. Flat-screen presentations will be hosted by the **Navy Pier IMAX Theatre**, which will have an IMAX laser projection system by that time, and Chicago's **Museum of Science and Industry** will host 15/70 film screenings on its 76-foot (23-meter) IMAX Dome screen.

The meeting will include screenings of new films; presentations on films in production and development; professional development sessions; a technical session; a trade show; and an awards ceremony.

Chicago's Museum of Science and Industry will host GSCA in 2017.

The GS industry (in the form of the GSCA's predecessor, the Giant Screen Theater Association) last met in Chicago in September 2001, one week after the 9/11 attacks.

The 2017 GSCA conference happens to coincide with the biennial **Jackson Hole Wildlife Film Festival**, which will be held in Jackson, WY, Sept. 25–29, 2017.

Spokane IMAX's fate unclear

One of the oldest extant IMAX theaters in the world, the **Riverfront Park IMAX Theatre** in Spokane, WA, closed for the season on Sept. 5, and it may never reopen. The city-owned, 400-seat theater has been facing financial difficulties for several years, and since 2013 has only been open for six months of the year (s*ee The Biz, January 2014*).

Former Riverfront Park manager **Hal McGlathery**, who retired from the position in 1996, has been on a campaign to save the 38-year-old theater, and has been urging the park board to convert the theater from 15/70 film to digital projection. However, current plans to update the park call for the theater to be demolished and a meadow put in its place sometime in the next two to four years.

McGlathery plans to testify before the board this month.

AMC's IMAX Space Week

AMC Theatres and **Imax Corporation** are programming a week of original IMAX space films along with space-related DMR feature films from Friday, Oct. 14, through Thursday, Oct. 20. Billed as "an opportunity to engage space fans both young and old," Space Week will offer double features of two 40-minute documentaries for $8.00, followed by the Hollywood space films at the usual IMAX morning price. IMAX Space Passes, priced at $20–25, depending on location, will admit visitors to all of the space shows. Some 30 theaters in the U.S. are participating.

The documentaries are ***A Beautiful Planet***, ***Blue Planet***, ***Hubble***, and ***Space Station***. The features are ***Gravity***, ***Interstellar***, ***The Martian***, ***Star Trek***, ***Star Trek Into Darkness***, and ***Star Trek Beyond***. amctheatres.com/imax-spaceweek.

First look at IMAX VR headsets

An early version of the **Starbreeze** StarVR headset, which will be used in the VR centers **Imax Corporation** has announced it is planning (*see Biz, May-June 2016*), was demonstrated at a trade show in Berlin this month. According to media

*(see **SHORTS** on page 15)*

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